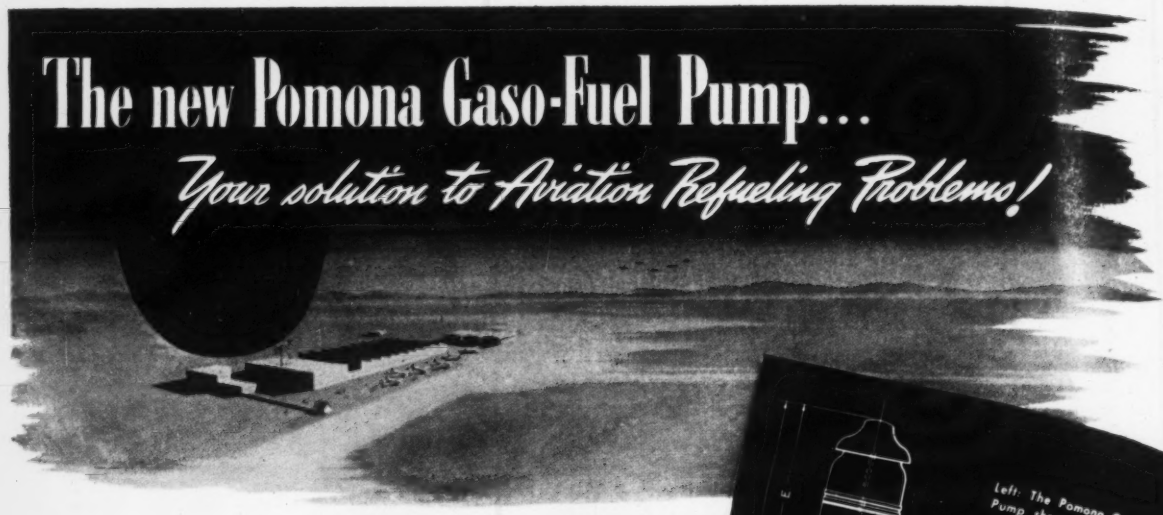
ENGINEERING NEWS-RECORD

Water reaches spillway crest on TVA's Nottely Dam as workers complete flashboard guides.

The new Pomona Gaso-Fuel Pump...

Your solution to Aviation Refueling Problems!



Particularly Recommended for Transfer Pumping of Underground Storage at Airfields, Base Storage Points, etc.

THERE has long been vital need for a pump specifically designed to meet the unique requirements of gasoline and fuel oil transfer pumping, airfield refueling systems, etc. After extensive research and development, Pomona engineers have perfected such a pump, *the Pomona Vertical Gaso-Fuel Pump!* This pump overcomes the many drawbacks of conventional-type units in gaso-fuel service and has been particularly engineered to insure safe handling of volatile liquids under hazardous conditions. A few of its unique features include . . .

Explosion-Proof Motor: Discharge heads designed for operation with totally enclosed *explosion-proof* motors, any size—2 to 75 h.p.!

Extremely Compact: Pump is of space-saving vertical construction. Even largest size requires only 25" diameter of floor space. Easily fitted to existing piping arrangements!

Self-Priming: The pump impellers are below fluid level and begin pumping the instant motor starts. No priming required . . . *an important safety feature!*

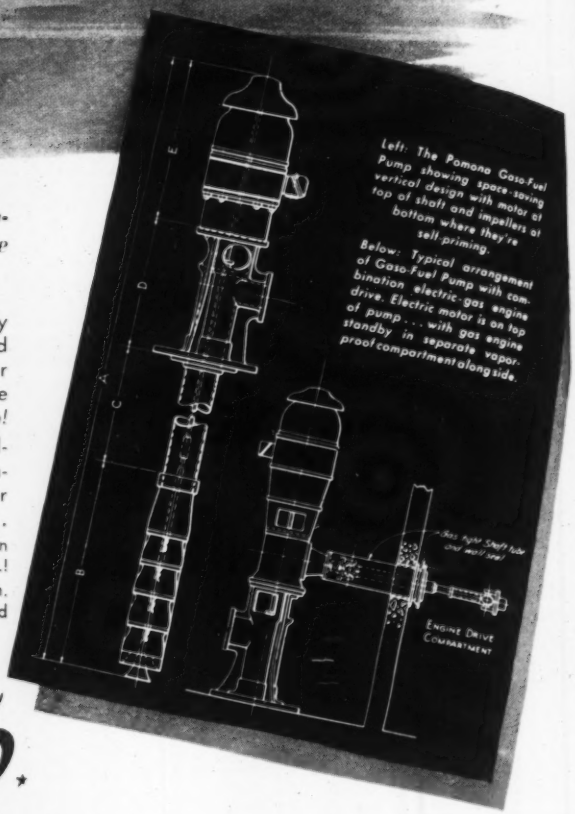
Handles 100 Octane: Unlike closed impeller pumps, Pomona's semi-open impellers eliminate the hazard of vapor locking on highly volatile fluids, aviation gasolines and similar fuels.

No Fuel Contamination: All bearings in fluid stream are lubricated *by the fluid being pumped.* No oil or grease chambers to leak . . . no risk of contaminating fuel supplies!

Vapor-Tight Packing Gland: There is only one packing gland in this pump (contrasted with the two or more needed in other-type pumps) and it is specially designed to handle volatile liquids without leakage.

Minimum Turbulence: Fluid flow through the pump is unusually smooth with minimum friction and turbulence. Eliminates pockets and traps where "gas lock" can occur . . . prevents volatilizing fuel!

THESE ARE ONLY A FEW of the many outstanding features incorporated in the new Pomona Gaso-Fuel Pump. Write our engineering department for assistance on adapting this pump to your particular fuel handling operations . . . whether for gasoline or oil, large gallonage or small, new construction or "work-over" operations!



Left: The Pomona Gaso-Fuel Pump showing space-saving vertical design with motor at top of shaft and impellers at bottom where they're self-priming.

Below: Typical arrangement of Gaso-Fuel Pump with combination electric-gas engine drive. Electric motor is on top of pump . . . with gas engine standby in separate vapor-proof compartment along side.

THE POMONA GASO-FUEL PUMP brings a new standard of efficiency to the handling of gasolines, benzines, diesel fuels, oils and similar fluids stored in airbase or other refueling systems • It can be mounted directly on the top of sub-surface storage tanks or in other convenient locations for use in transferring fluids to various dispersal units, pumping to loading tanks, etc. • All flanges and mountings are drilled to fit standard openings in storage reservoirs now in common use, enabling the pump to be quickly installed in existing distribution systems without piping alterations . . . or to be installed in new construction without costly, time-wasting special designs • Intake can be set close to the bottom for quick clean-up of sumps, tanks or compartments, and guards are available to prevent picking up bottom sediment or water • Pump can be easily adjusted at the surface to fit varying capacities and head conditions, giving wide flexibility to fit the particular operating requirements of each installation.

Get the full story on this new Pomona Gaso-Fuel Pump. Find out how it increases the safety and efficiency of refueling systems . . . how it incorporates unique operating features available in no other make or type of pump available today! See your nearby Pomona dealer for complete details—or write direct to our engineering department!

POMONA
Water-Lubricated
PUMPS

POMONA PUMP CO., 120 Broadway, New York City
Plants located at 4301 South Spring Avenue, St. Louis, Missouri, and 206 Commercial Street, Pomona, California

A PRODUCT OF THE WORLD'S LEADING TURBINE PUMP MANUFACTURER

The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • OCTOBER 1, 1942 • VOLUME 129 • NUMBER 14

Congress, war agencies agree to continue housing program

Both houses pass measure authorizing $600,000,000 for additional work despite materials shortages. Survey shows need for war worker accommodations.

Congress, the War Production Board, and the National Housing Agency have just about reached agreement to continue for a while the construction of housing for defense workers despite the ever-tightening scarcity of materials. Both houses of Congress last week passed a measure—pending for months—that will authorize a further expenditure of $600,000,000 on public housing.

This will finance the construction of temporary dormitories for 55,000 people at an average cost of $1,200 per room; of "dormitory apartments" for 55,000 couples at $2,400 per apartment; of 70,000 temporary family dwelling units at an average of $3,000 each; and of 25,000 permanent family dwellings to cost $4,500 each. In addition, $58,000,000 will be turned over to the War Department for construction of housing for civilian employees at military posts.

Only half the problem

Money, actually, is only half the problem. Equally important is getting WPB to approve the use of the materials. This, too, has been substantially accomplished. WPB's Requirements Committee has approved an allotment of the materials required to carry out the $600,000,000 program. There are still some details to be straightened out, and WPB allotments are likely to be changed without notice, but for the remainder of the year, at least, housing officials are confident that it will be possible to get the needed materials.

The WPB agreement of last September to approve 100,000 publicly financed houses and the March agreement to approve another 150,000 have been replaced by the present allotment. An allotment in terms of numbers of houses became unworkable when NHA started building dormitories and other unconventional dwellings.

The September and March agreements are understood still to be in effect, however, as regards privately financed houses. They call for approval of 415,000 such houses, of which 322,455 had received ratings on September 11. Thus there is still room for construction of 90,000 more private houses within the terms of the agreement.

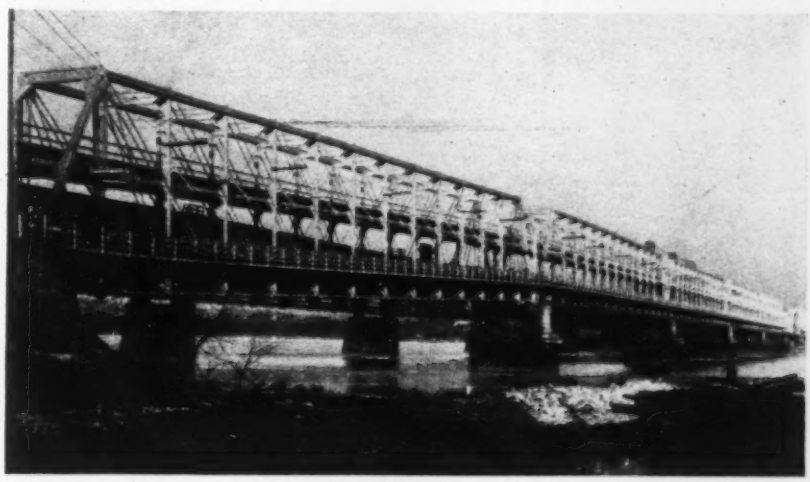
There is ground for belief that the public and private housing now in prospect is all that will be undertaken for the duration of the war. Housing needs which are not met by this program, according to current WPB thinking, will have to be dealt with by compulsory billeting of industrial workers in existing homes.

The situation throughout the country, as reported by *ENR* correspondents, included these highlights last week:

At Spokane, Wash., Frank S. McWilliams, president of the Chamber of Commerce, warned construction and industry committee members that the housing situation in that city was "acute". "Hotel managements have reported that guests are sleeping in the hallways, so great has been the influx of people," Mr. McWilliams said. He added that the Chamber has sponsored 1,500 homes, of which 475 have been built.

At Washington, D. C., itself, the Federal Works Agency awarded two contracts for construction of resident-hall buildings at Arlington Farms, Va., and one at Suitland, Md., to house nearly 8,000 persons. Cost of the contracts was

(*Continued on page 11*)



Havre de Grace double deck bridge eyed for scrap metal

The state of Maryland last week awaited a War Department decision before taking action to convert its double-deck steel truss bridge across the Susquehanna River at Havre de Grace into scrap metal for use in the nation's war drive.

The 3,280 ft. structure contains an estimated 3,495 tons of usable metal.

Once called the "Gold Mine Bridge" because it netted a fortune to incorporators of a company that operated it for more than 13 years after acquiring it for $700, the bridge originally was built as a railroad structure, and converted and opened to traffic in 1910. In 1927 it received nationwide attention from engineers when it was double decked, involving what was then the biggest welding job undertaken—1,260 tons of new steel having been added for the upper deck. Situated near the rights-of-way of two trunk line railroads, the bridge is now closed to vehicular traffic but several hundred pedestrians use it daily. Piers of one of the railroad structures may be seen in the above photograph.

Governor O'Conor of Maryland said last week that the state would await Army decision as to whether or not the bridge was of any military value.

Steel specifications seen as forerunner of many other war emergency standards

New specifications on concrete, wood and masonry due to be issued by WPB in moves likely to modify structural design practices

Emergency specifications for the design of steel structures issued by WPB this month (*ENR*, Sept. 17, p. 389) were the first of a series that will eventually modify nearly all types of structural design. A set of specifications applying to design of reinforced concrete the same approach that was used in the steel specification now is approaching final approval and probably will be issued within a few weeks, according to a branch of the WPB.

Farther off is a specification on masonry construction, which is now being encouraged as being less costly in critical materials than wooden construction. The savings to be obtained here are less impressive than in those types of construction using more metal. But even in masonry, there are many local building codes that call for excessive wall thickness and the like. A WPB specification would overrule these local codes.

The steel specification, similiarly, overrules—or disregards—local codes. No project can get a rating unless the designer certifies he has conformed to the WPB specification. Unless a municipality or state wants to stop all building, it has to waive its own, stiffer requirements.

Subsequently, a specification on wood en construction probably will be issued.

Another type of control over design is the limitation imposed some month ago on the number of sizes of steel shapes which can be used (*ENR* Oct. 30, 1941, p. 622).

and last month's limitation of cement manufacture to four types. Last week an amendment to this order provided that testing of cement may be done by commercial laboratories designated by the Bureau of Standards as well as by the Bureau itself.

Still another type of restriction is exemplified in an order this week—an amendment to L-42—forbidding the use of tar coatings on cast iron pipe. This is expected to save the 640,000 gal. of tar used for the purpose last year as well as divert to other uses about 150 tank and box cars.

WPB is now making studies directed along another line. It is preparing tables showing a "normal" material consumption for various types of common construction—mill buildings, roof trusses of a given span, and the like. This would be used as a guide by priorities officials; if they found a design calling for more than the normal quantity they would ask questions.

Floods may force moving of Wisconsin village

Community leaders of the Wisconsin village of Spring Valley are considering moving the entire town to higher ground, as a result of a series of six floods within the year, that almost completely flooded the town.

The Eau Galle River, a tributary of the Chipewa, in its latest flood, destroyed 54 business houses, the city's fire station and all equipment, and the municipal water pumping station.

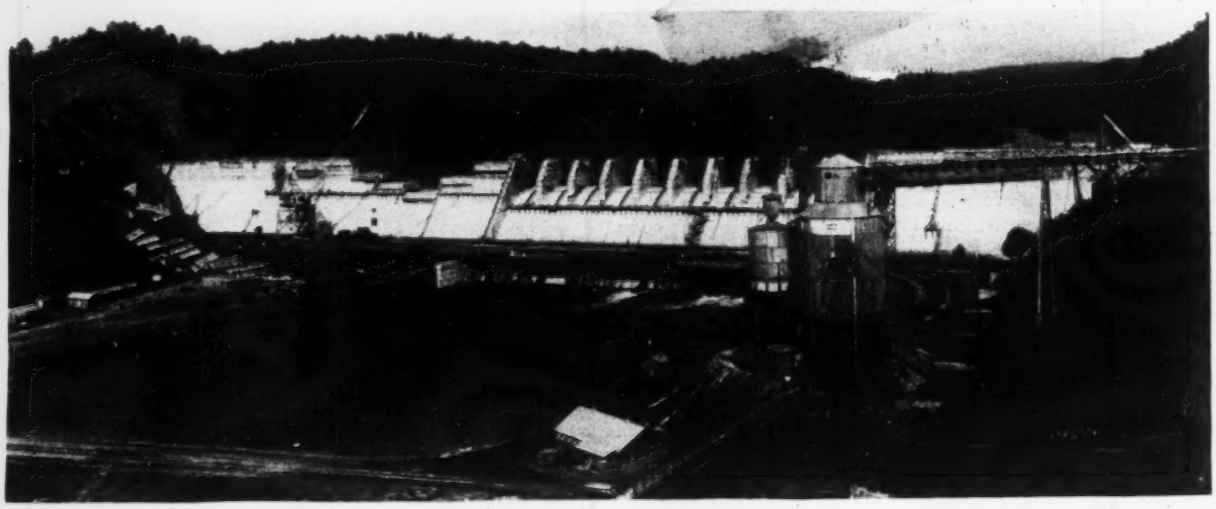
Sixty percent of the residences were seriously damaged, with three or four feet of water over first floors, six houses were destroyed, eight others so badly damaged they will require rebuilding.

• • •

Seek old steel for new highway bridges

Seeking to maintain its highway system in the best possible repair, despite shortage of steel and other materials, the Pennsylvania Department of Highways is now advising contractors bidding on bridge construction where second-hand steel can be located.

E. E. Brandow, bridge engineer for the department, said that part of new contracts signed will call for the removal and transportation of such bridge steel from its present location to that of the new job.



TVA's Dam on Hiwassee River near completion

A little more than a year ago, Congress authorized the Tennessee Valley Authority to build four storage and hydro projects on the Hiwassee River and its tributaries (ENR Dec. 18, 1941, p. 866).

Apalachia Dam, shown above, has a small reservoir, but directs the flow of the river below Hiwassee Dam into a 43,000-ft. long tunnel to produce a head of more than 200 ft. at a downstream point. Storage here will start late in the fall, according to TVA engineers.

The cover of this issue shows water approaching the spillway crest level at the rolled-fill Nottely Dam in north Georgia, as workmen complete the flashboard guide to increase storage. Chatuge reservoir is also nearly full behind the rolled-fill storage dam intended to add to the dry months' flow into Hiwassee reservoir.

Ocoee No. 3 Dam on the Ocoee River immediately above two other high head dams is storing water, but gates are not in place to permit full use of the reservoir.

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Saville calls for government-sponsored engineering education program

N.Y.U. engineering school dean urges immediate program to select and finance high school graduates showing engineering aptitudes

In the face of a rapidly growing national shortage of engineering personnel, Dean Thorndike Saville of the New York University College of Engineering last week called for the prompt establishment of a government-sponsored program to select, finance and allocate those high school graduates who show promise in engineering.

Dean Saville, head of one of the largest engineering schools in the nation, made his recommendation in a report to Chancellor Harry Woodburn Chase. He said that high school graduates with obvious aptitudes for engineering study were at present caught in a "welter of confusing information," and that many were lost to the profession because of confusion and because of the lure of immediate pay in war industries.

"It is my feeling that some program would go far toward solving the present uncertainty in the training executives on the one hand, and on the other hand would assist materially in a long-range plan for producing the right kind of engineers," Dean Saville said.

Pointing to the conflicts now affecting students, between selective service principles and directives; the recruiting practices of the military services; the "V" programs of the Navy and the requirements of the R.O.T.C., the educator said that "the vaguest and most unsatisfactory" coordination now exists between these programs and none at all with the equally important needs of industry and the government technical services.

"Obviously, we should regularize, coordinate, and compromise," Saville's report went on. "No activity essential to the war effort can obtain, for some time, all of the engineering talent which it needs. Some 50,000 additional engineering personnel will be needed within a year. The engineering colleges will graduate between 18,000 and 20,000. And yet, high school students lacking means for a college education and others enticed by the high wages of the war employment offices and the civil service, are lost to professional training.

"Therefore, in engineering there should be a government sponsored program that will select, finance, and allocate high school students with the proper aptitudes. This allocation may even be effected by induction into a special students training corps for assignment to engineering colleges. Upon completion of approved curricula, or when their records indicate an inability to complete the course successfully, the students should be allocated on a quota system to work for which they are best fitted from the standpoint of the national need existing at that time.

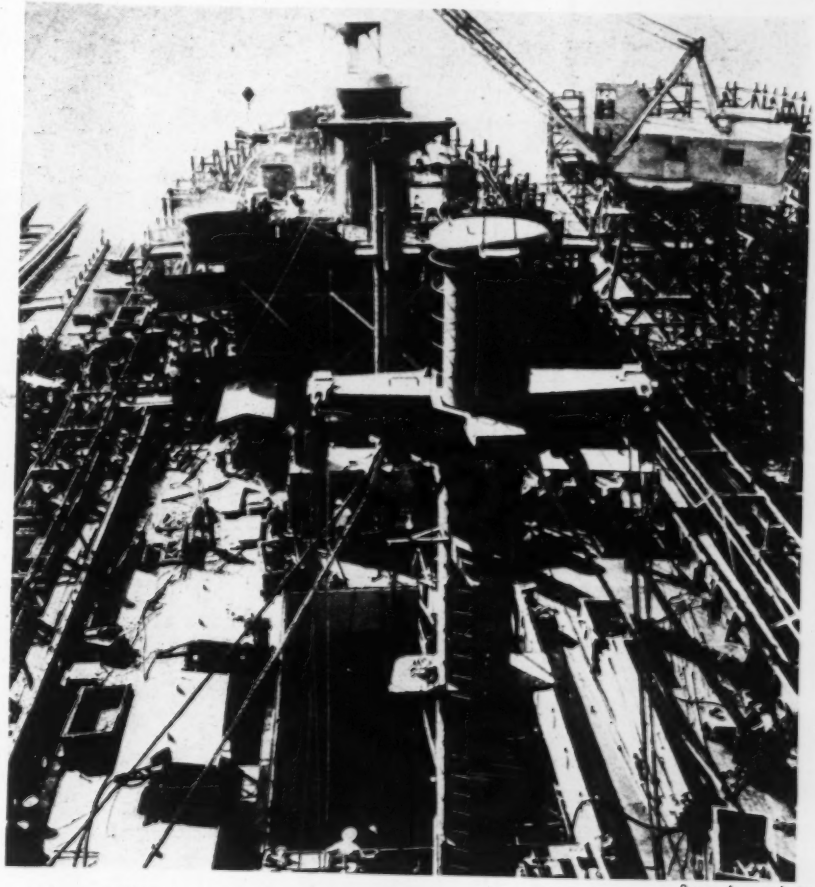
"I feel that it is essential to invoke promptly some form of public subsidy, if the nation is to have an adequate supply of properly trained and motivated engineering graduates. A policy of government selection, finance, and allocation should be based upon the expectation of a long war, and should be adopted after agreement between engineering college administrators, and officials charged with the training of technical personnel for war purposes.

"The mechanism for all of this will be hard to devise and will pose serious post-war problems of readjustment. But the mechanism can be reasonably simple; it is desperately needed, and the efforts of students and faculty will be enhanced to the benefit of morale and effective national service."

Points mentioned in the recommendations for a national program included:

The selection of many more high school graduates tested for engineering ability and aptitude and assigned to engineering colleges; a determination of the number of different kinds of engineering graduates estimated as needed in 1943, 1944, 1945 and for each year until the end of the war.

A quota of freshmen assigned each year to each engineering college. This should be determined in part by the capacity of the college, and in part by its special facilities.



Press Assn. photo

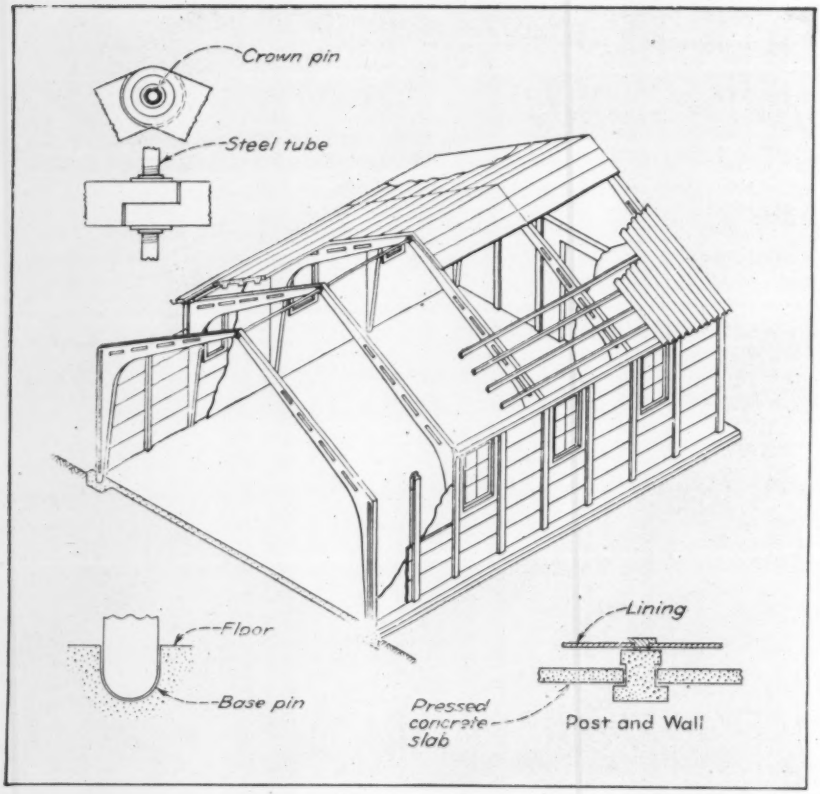
Kaiser yard sets ten day shipbuilding record

This unusual view shows the 10,500 ton Liberty freighter Joseph N. Teal, as she was made ready for launching recently from the yards of the Oregon Shipbuilding Co. As shown, the ship is 87 percent complete, and was launched in exactly ten days from the time her keel was laid.

In the immediate foreground is a ventilator shaft, which like most other sections of the ship was prefabricated on land and then set and welded in place. The small roofed structures visible on the left of the deck are welding machines, ready for service as each section of the ship is set in place.

When launched, the ship's boilers were in place and steam was up. In the back foreground is the deck house, with the simple smokestack rising behind it.

British Prefabricated Wartime Huts



Successful types of one-story concrete and wallboard huts designed [illegible] production by British organizations were shown at a recent exhibition in London.

All the types correspond in size to the British government requirements of the rectangular clear-span standard unit, 60 ft. x 19 ft. 1½ in. open floor—which can be subdivided as desired for use as factory, storage building, dormitory, dining hall, etc. All types employ prefabrication to the largest possible extent, and are designed to save strategic materials like steel and timber, and can be erected with a minimum of skilled labor on a simple, concrete foundation.

The BCF clear-span type has been designed by the British Concrete Federation with special regard to the saving of reinforcing steel. Different types of concrete are employed, all units are standardized, use of steel and timber is practically limited to doors and windows. In one of these the typical concrete post and roof beam are replaced by one curved unit — the portal reinforced concrete frame—which reaches from the bottom of the walls to the center of the roof where it is joined to the opposite portal frame, thus forming an arch supporting both walls and roof. The roof is made of precast concrete slabs or corrugated asbestos sheeting. The outer skin of the walls

★ ★ ★

***Above**—British Concrete Federation type hut has a three-pin portal frame of reinforced concrete, which carries the roof and walls. The walls are made of externally, pressed concrete blocks, the inner lining of which is plasterboard or other similar material. The roof consists of asbestos-cement or concrete slabs covered with felt.*

★

***Right**—Ministry of Works and Buildings hut design provides a roof supported on wood framed panels, covered on the outside with felted plasterboard and on the inside with plasterboard only. Roof trusses are of framed timber with plywood gussets and knee braces bolted to side panels. The roof is of wood framed panel construction similar to the wall panels.*

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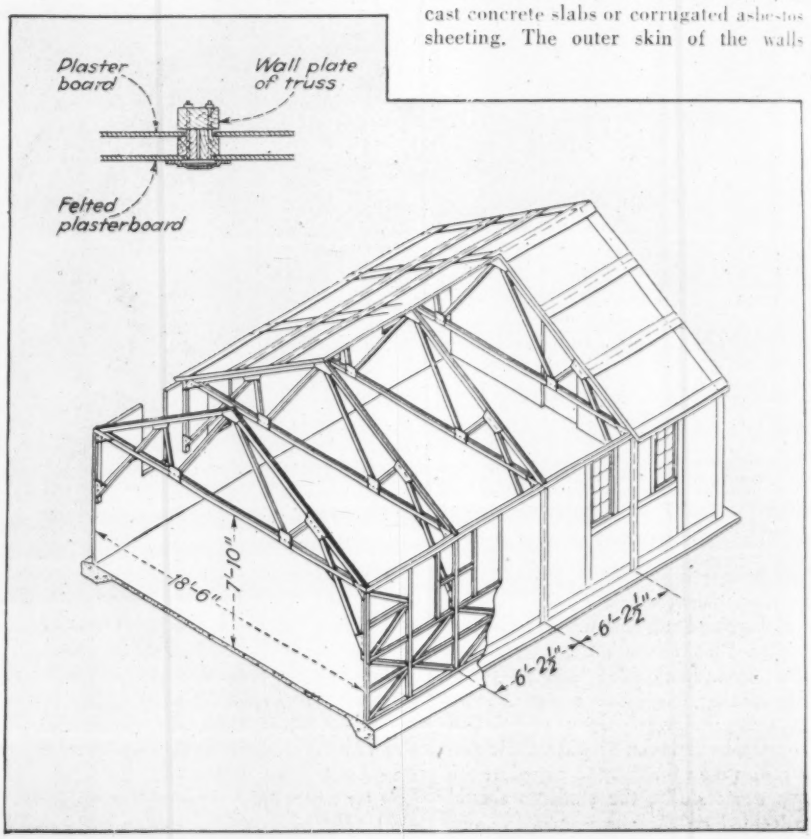


ut Designed for Mass Production

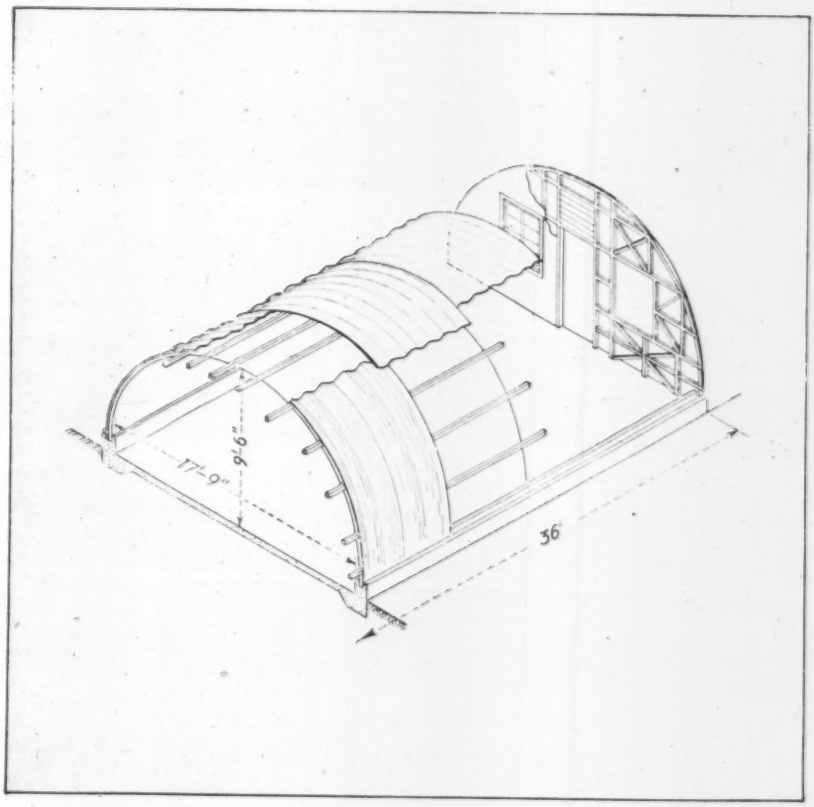
is made of precast concrete slabs bedded with mortar, the inside covered with any suitable wallboard.

The MOWB (Ministry of Works and Buildings) hut consists of precast units which are covered on both sides with plasterboard protected on the outside with roofing felt. The roof is built of light, timber trusses covered by plasterboard units.

Another type, known as the Seco hut, is built of a framework including plywood and timber blocking pieces. The wall and roof units are made of asbestos sheets with a wood wool and cement core. The roof is covered with roofing felt.

Use of curved asbestos sheets is the feature of the Turner hut. This is built of molded corrugated sheets of asbestos that are bolted together and lined on the inside with flexible asbestos sheeting. The hut has the special advantages of good insulation and easy transport.

A new device that has been incorporated in the BCF hut is a window sash and frame of concrete with a minimum of reinforcing steel. The weight of the reinforcement is about 8 lb. against 40 lb. in a comparable steel window, a saving in metal of over 32 lb. per window.



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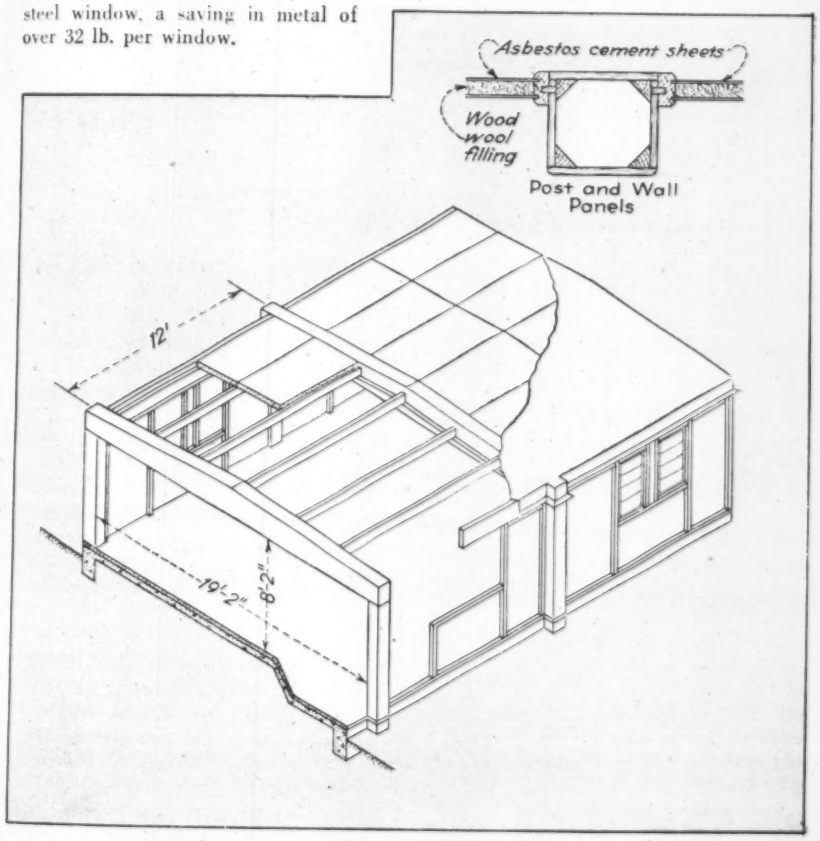
Above—*Curved asbestos-cement corrugated sheets are used to form the arched roof of the Turner hut. At the spring line the corrugated sheets are raised on a concrete trough to 9 in. above the floor. The entire hut is lined with flexible asbestos-cement sheets.*



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Left—*Posts and roof beams of plywood construction feature the Seco type hut. Wood wool slabs carried on wood purlins between plywood beams and covered with felt are used for the roof. The walls are of wood framed panels, filled with wood wool between sheets of asbestos-cement.*

* * *

MEN AND JOBS

Lt. Col. Donald P. Booth, executive officer of the Seattle district, Corps of Engineers, has announced that **George F. Hopkins,** a civilian employee of the Corps since 1930, and **Elmer H. Elwin,** also previously with the Corps in a civilian capacity, have been commissioned as captain and lieutenant, respectively.

Louis F. Birkel, Jr., has been added to the staff of the Kentucky Department of Health, bureau of sanitary engineering, to fill the vacancy created by the resignation of **E. F. Franz** who accepted a commission in the Corps of Engineers.

R. C. Gibson, assistant chief bridge engineer of the Arkansas State Highway Department, has resigned to accept a position with the Public Works Administration on construction of the Pan-American highway.

D. McG. Williams and **Hugo Walker,** superintendent and assistant superintendent, respectively, of the city water department at Durham, N. C., have been named to head a newly created waterworks division of the Durham Civilian Defense Council.

J. Wylly Kech, of Coral Gables, Fla., vice president of the Florida State Board of Engineers, has been appointed president of that body.

Bert Green, of Martin, Tenn., has gained a civil service appointment with the engineer division of the U. S. War Department. He will be stationed at Elwood, Illinois.

Jacob J. Creskoff, civil engineer, formerly with the Vacuum Concrete Corp., has been appointed resident vice president for the McCloskey Company at Washington, D. C. **Neal A. Melick,** formerly supervising engineer for the Public Buildings Administration at Washington, is now also connected with the McCloskey Company as project manager at Tampa, Florida.

Robert E. Stiemke, for the past several years a member of the faculty at Wayne University, Detroit, Mich., has become associate professor of sanitary engineering at North Carolina State College, Raleigh. He succeeds **T. S. Johnson,** now on leave while serving in the post of North Carolina OPA director.

Maj. E. E. Taylor has become area engineer at the Sunflower ordnance plant in Kansas, succeeding **Maj. W. C. Strecher,** who was transferred to the Omaha district. Other changes at the Sunflower plant include **Capt. L. Lozier,** formerly legal officer at Omaha, Neb., transferred to become executive officer at Sunflower.

Roy E. Jorgenson, of West Hartford, Conn., formerly manager of highway surveys for the Connecticut State Highway Department, has been named director of the newly created Bureau of Highway Planning Studies.

Louis Crepeau, formerly of Montreal and Quebec, Canada, has been named city engineer for Ste. Hyachinthe, succeeding **M. O. Quevillon** who resigned recently to accept private employment.

Harold B. Gotaas, formerly professor of sanitary engineering in the school of public health at the University of North Carolina, has been commissioned a captain in the Sanitary Corps of the U. S. Army and is now serving as chief of the engineering section of the division of health and sanitation, in the office of the Coordinator of Inter-American Affairs at Washington, D. C.

Edward B. Evans, Jr., civil engineer of Omaha, Neb., has been appointed chief engineer in charge of construction work on a flying school in New Mexico.

Cecil T. Roberson, a civil engineering graduate of the University of Kentucky, is now inspector in charge of the U. S. Treasury Department Procurement Division in Atlanta, Ga. In this position Mr. Roberson will be in charge of inspection and expediting of lend-lease contracts within the states of Florida, Georgia and North and South Carolina. He was previously in the New York City office.

Harry C. Brockel, acting port director at Milwaukee, Wis., has been approved for the position by the city civil service commission. He was formerly port commission secretary, and succeeds **C. U. Smith,** who resigned several months ago.

Carlton T. Bishop, associate professor of civil engineering at Yale University, New Haven, Conn., has been appointed a member of the New Haven Board of Park Commissioners.

E. B. Gibbs of Durham, N. C., senior resident engineer of the North Carolina Highway and Public Works Commission, has resigned to enter the Army. He is succeeded by **W. D. White,** formerly in a division office at Lexington, N. C.

Lieut. Walter B. Little has been appointed to active duty in the Corps of Engineers, and has been assigned as assistant area engineer at Yakima, Wash. He was formerly an engineer for the Tacoma light department, and [illegible] Washington and California State [illegible]way Departments.

Knute Henning of Fargo, N. D. [illegible] become chief engineer for Six Bui[illegible] Inc., on an Air Corps technical sch[illegible] under construction in South Dakota.

Warren G. Tilton, head of t[illegible] forest conservation department of th[illegible] West Coast Lumbermens' and Pacif[illegible] Northwest Loggers Association, has [illegible] a captain in the Corps of Engineers.

James Leo Murphy, former Dare [illegible]unty, N. C., surveyor and engineer, has been commissioned a captain in the Marine Corps Reserve.

Carl Erickson, Douglas County, Minn., engineer, has been granted a leave of absence to undertake wartime airport construction in Canada. **W. E. Burgess,** Grant County engineer, has been named acting county engineer.

C. W. Lee, district engineer for Division 10, of the North Carolina State Highway and Public Works Commission, has resigned to enter Army service.

H. E. Fowler, assistant superintendent of the Seattle (Wash.) building department for 25 years, has applied for retirement.

Kenneth C. Tippy, formerly an engineer in the Cement Products Bureau of the Portland Cement Association at Chicago, Ill., has been appointed assistant professor of civil engineering in the College of Applied Science, Syracuse University. He will have charge of the hydraulic and materials testing laboratories of the college.

H. T. Ammerman, division engineer at Chattanooga for the Tennessee State Highway Department, has been transferred to Nashville as assistant engineer.

E. D. Blakney, civilian engineer who has served as chief administrative assistant at the Little Rock District Office of the Corps of Engineers, has been appointed a major in the Army Specialists Corps, detailed to the Engineer Corps.

Capt. Homer E. Anderson, formerly a division engineer for the Ohio Etate Highway Department at Ravenna, has reported for active duty at the Engineers Replacement Center, Fort Leonard Wood, Mo.

Robert B. Brooks, consulting engineer of St. Louis, Mo., and a member of the Missouri State Highway Department, has been retained as a consultant by the director-general of highways of Mexico. Mr. Brooks spent the month of September in Mexico City on his new assignment.

Strategic Highway in Brazil

Press Assn. photos

Workmen fill in a valley section of Brazil's strategic highway with dirt taken from a cut in the hills. Horse carts and trucks work together on this job.

Although the United States of Brazil entered active participation in the world's conflict only a short time ago, it has long been engaged in building a master highway system designed to link the nation closer together and to speed the movement of troops and supplies.

One of these great highways, sections of which are shown in the accompanying photographs, runs north and south from Fortezala to Porto Alegre—a distance of 2,113 miles.

It has no official name, but is known generally as the Strategic Highway of Brazil.

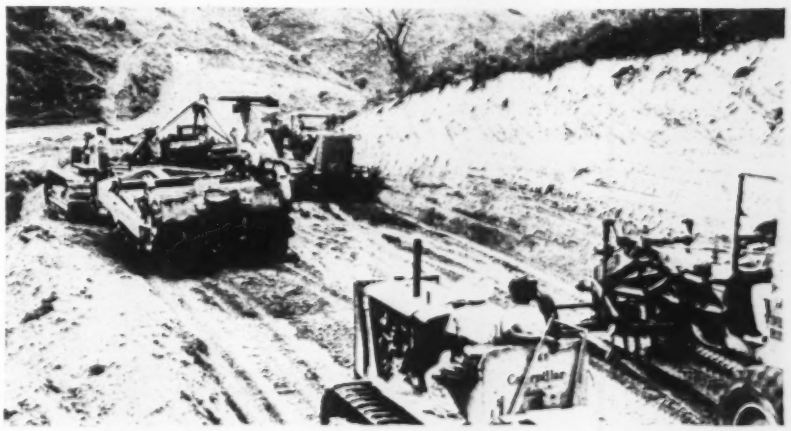
Construction of the road was started in 1936 and is not scheduled to be completed until 1944. More than 6,000 men are at work on the road, which will be a two-lane surfaced route over most of its length.

Most of the road machinery was made in the United States, as will be seen in the center photo. The Brazilian Government has provided huge maintenance shops, equipped with machinery capable of making repairs and even of building new parts.

A colony of portable homes such as the one shown in the left of the fill in the upper photograph follows the workmen as they progress from one section of the country to another. The homes are transported by truck, are cheap, and are easily assembled.

The photographs show the greatly varying terrain and climatic conditions of the country. For example, the upper photograph looks very much like sections of our own West, while the lower photograph resembles closely the southern section of this country.

The upper picture shows an ancient dump-cart at work in unison with a truck just emerging from the cut in the center background.



Modern highway machinery levels another section of the highway. Cut sides are made nearly vertical because the fine material will stand water better when so cut.

A completed section of the Brazilian strategic highway, between Rio de Janeiro and Petropilis. The road here is a two-lane concrete pavement with a center strip paved to facilitate passing.

MEN AND JOBS

Lt. Col. Donald P. Booth, executive officer of the Seattle district, Corps of Engineers, has announced that **George F. Hopkins,** a civilian employee of the Corps since 1930, and **Elmer H. Elwin,** also previously with the Corps in a civilian capacity, have been commissioned as captain and lieutenant, respectively.

Louis F. Birkel, Jr., has been added to the staff of the Kentucky Department of Health, bureau of sanitary engineering, to fill the vacancy created by the resignation of **E. F. Franz** who accepted a commission in the Corps of Engineers.

R. C. Gibson, assistant chief bridge engineer of the Arkansas State Highway Department, has resigned to accept a position with the Public Works Administration on construction of the Pan-American highway.

D. McG. Williams and **Hugo Walker,** superintendent and assistant superintendent, respectively, of the city water department at Durham, N. C., have been named to head a newly created waterworks division of the Durham Civilian Defense Council.

J. Wylly Kech, of Coral Gables, Fla., vice president of the Florida State Board of Engineers, has been appointed president of that body.

Bert Green, of Martin, Tenn., has gained a civil service appointment with the engineer division of the U. S. War Department. He will be stationed at Elwood, Illinois.

Jacob J. Creskoff, civil engineer, formerly with the Vacuum Concrete Corp., has been appointed resident vice president for the McCloskey Company at Washington, D. C. **Neal A. Melick,** formerly supervising engineer for the Public Buildings Administration at Washington, is now also connected with the McCloskey Company as project manager at Tampa, Florida.

Robert E. Stiemke, for the past several years a member of the faculty at Wayne University, Detroit, Mich., has become associate professor of sanitary engineering at North Carolina State College, Raleigh. He succeeds **T. S. Johnson,** now on leave while serving in the post of North Carolina OPA director.

Maj. E. E. Taylor has become area engineer at the Sunflower ordnance plant in Kansas, succeeding **Maj. W. C. Strecher,** who was transferred to the Omaha district. Other changes at the Sunflower plant include **Capt. L. Lozier,** formerly legal officer at Omaha, Neb., transferred to become executive officer at Sunflower.

Roy E. Jorgenson, of West Hartford, Conn., formerly manager of highway surveys for the Connecticut State Highway Department, has been named director of the newly created Bureau of Highway Planning Studies.

Louis Crepeau, formerly of Montreal and Quebec, Canada, has been named city engineer for Ste. Hyachinthe, succeeding **M. O. Quevillon** who resigned recently to accept private employment.

Harold B. Gotaas, formerly professor of sanitary engineering in the school of public health at the University of North Carolina, has been commissioned a captain in the Sanitary Corps of the U. S. Army and is now serving as chief of the engineering section of the division of health and sanitation, in the office of the Coordinator of Inter-American Affairs at Washington, D. C.

Edward B. Evans, Jr., civil engineer of Omaha, Neb., has been appointed chief engineer in charge of construction work on a flying school in New Mexico.

Cecil T. Roberson, a civil engineering graduate of the University of Kentucky, is now inspector in charge of the U. S. Treasury Department Procurement Division in Atlanta, Ga. In this position Mr. Roberson will be in charge of inspection and expediting of lend-lease contracts within
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Tacoma light department, and Washington and California State Highway Departments.

Knute Henning of Fargo, N. D., has become chief engineer for Six Builders, Inc., on an Air Corps technical school under construction in South Dakota.

Warren G. Tilton, head of the forest conservation department of the West Coast Lumbermens' and Pacific Northwest Loggers Association, has become a captain in the Corps of Engineers.

James Leo Murphy, former Dare County, N. C., surveyor and engineer, has been commissioned a captain in the Marine Corps Reserve.

Carl Erickson, Douglas County, Minn., engineer, has been granted a leave of absence to undertake wartime airport construction in Canada. **W. E. Burgess,** Grant County engineer, has been named acting county engineer.

C. W. Lee, district engineer for Division 10, of the North Carolina State Highway and Public Works Commission, has resigned to enter Army service.

H. E. Fowler, assistant superintendent of the Seattle (Wash.) building department for 25 years, has applied for retirement.

Kenneth C. Tippy, formerly an engineer in the Cement Products Bureau of the Portland Cement Association at Chicago, Ill., has been appointed assistant professor of civil engineering in the College of Applied Science, Syracuse University. He will have charge of the hydraulic

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Strategic Highway in Brazil

Press Assn. photos

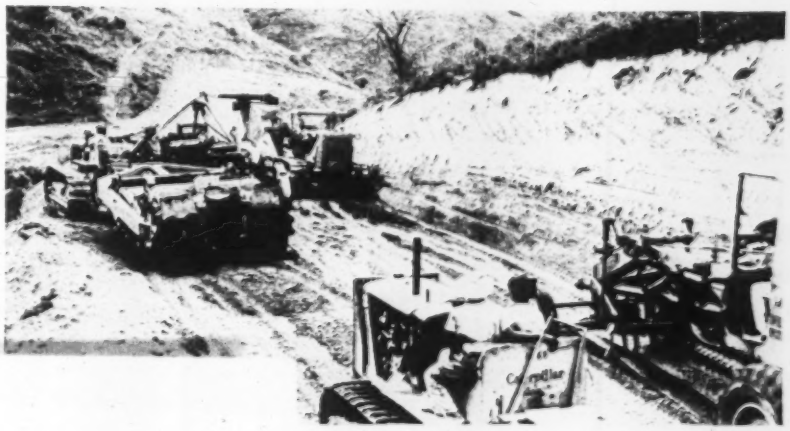
Workmen fill in a valley section of Brazil's strategic highway with dirt taken from a cut in the hills. Horse carts and trucks work together on this job.

Although the United States of Brazil entered active participation in the world's conflict only a short time ago, it has been engaged in building a master highway system designed to link the nation closer together and to speed the movement of troops and supplies.

One of these great highways, sections of which are shown in the accompanying photographs, runs north and south from Cruzeiro to Porto Alegre—a distance of 1313 miles.

It has no official name, but is known generally as the Strategic Highway of Brazil.

Construction of the road was started in 1936 and is not scheduled to be com-



els another section of the highway. Cut sides are e fine material will stand water better when so cut.

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azilian strategic highway, between Rio de Janeiro s a two-lane concrete pavement with a center strip

Pennsylvania approves flood control spending

Governor Arthur H. James of Pennsylvania, has authorized an initial expenditure of $635,000 in two flood control districts, as the first step in reducing the damage from floods such as those of last summer (*ENR*, Aug. 27, p. 273, and previous).

One district, as mapped by the governor, will be the entire Lehigh River basin, and the other will be that area which was hard hit in the flash floods, including the counties of McKean, Potter, Elk, Tioga, Cameron and Clinton. More than one district may be made out of the multiple-county group, since more than one watershed is involved.

In authorizing the projects, on which work will start immediately, James accepted the reports of a flood control committee he had appointed earlier in the year to study the situation.

State secretary of forests and waters G. Albert Stewart said primary attention will be given to re-establishment of the channel lines of the Lillibridge Creek, which flows through the city of Port Allegheny. Other work will in general be confined to re-establishing channel lines and removing stream obstructions wherever possible.

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Uphold city's action in rejecting Bluff Creek bid

The Oklahoma City council was within its legal rights in rejecting a $3,787,442 bid of the Groves-Bass-Ottinger contracting combination and electing to build the Bluff Creek reservoir and canal under force account, according to a recent decision of the Oklahoma supreme court.

The suit involved a charge by the contractors that the city officials had acted arbitrarily in rejecting the bid, and that the city council abused its discretion. A court order was asked directing the city to rescind its action and award the contract to the contracting combination, which consists of S. J. Groves & Sons and Joseph A. Bass, of Minneapolis, Minn., and E. C. and Clyde Ottinger, of Oklahoma City.

The court pointed out that the city, in opposing the mandamus action, had declared that the bid was rejected on advice of the city manager and city engineer, who contended that the bid was excessive. The court ruled that the city was authorized by its charter to reject all bids and do the work if it saw fit.

Recently the city announced that it was doing the work at a figure between 17 and 20 cents per cubic yard for earthfill below the price bid by the contracting combination (*ENR*, Sept. 17, p. 398).

A.I.S.C. announces new bridge design competition

The American Institute of Steel Construction has announced another annual bridge design competition, open to registered students of structural engineering and architecture in recognized technical schools in the United States and possessions. Three cash prizes, of $200, $100 and $50, are offered.

The subject of the competitive design is a steel grade separation carrying a highway over the four-track main line of a railway, a navigable canal, and a dual four-lane highway, to which there shall be one-way connections with the overhead crossing.

The structure shall provide a clear width of 42 ft. between curbs. Steel railings are to be provided of a total height above the roadway surface of 3 ft. 2 in. The axial alignment is straight throughout the full length of the structure, and the structure is on a 15 deg. skew with the canal, railway and highway, the center lines of which are parallel to each other.

Drawings must be r[illegible] at the executive offices of the I[illegible] 101 Park Ave., New York City, [illegible] later than Feb. 8, 1943.

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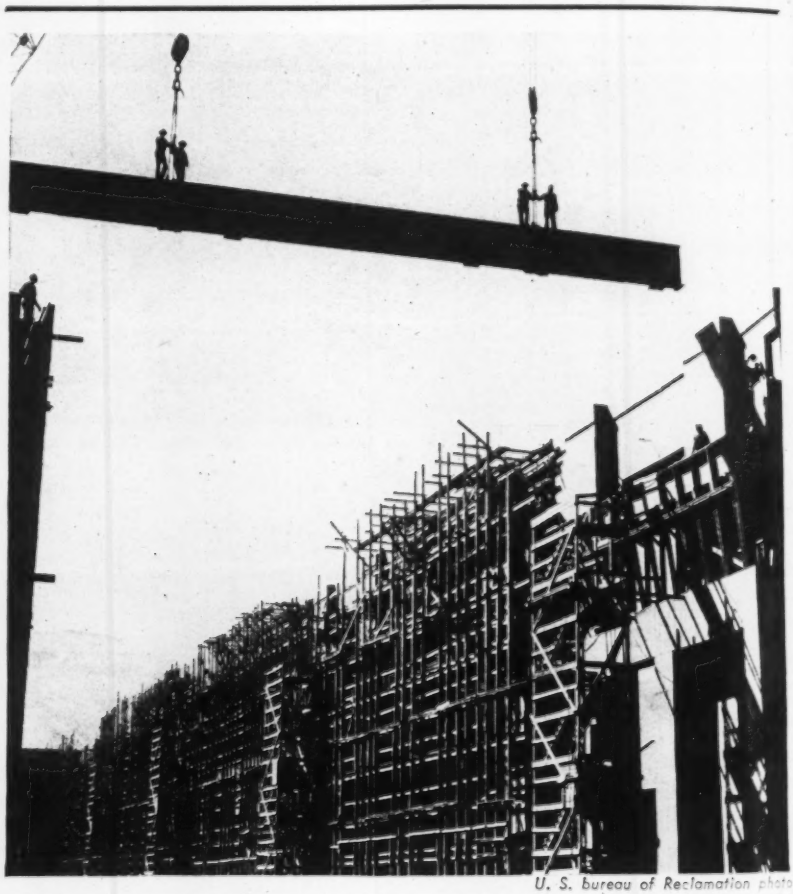
Mexico maps huge new strategic road program

Planning the greatest [illegible] ever made for such work, the Mexic[illegible] Ministry of Communications and Publ[illegible] Works has announced plans for prov[illegible] and conditioning a network of abo[illegible],000 miles of strategic highway th[illegible]out the country.

Planned expenditure will total about $15,350,000, in addition to $10,000 for bridges on these roads and other funds for road conservation.

In addition, the government's railroad building program—now limited to two lines—the Southeastern, connecting Mexico City with Campeche and Yucatan states, and an extension of the Mexico, Kansas City and Orient Railway from central Chihuahua state to the Pacific coast—is being pushed as fast as possible.



U. S. bureau of Reclamation photo

Work begins on roof of Grand Coulee power house

Workmen above ride a 17 ton steel girder to its place in the walls of the east powerhouse at Grand Coulee dam. The girder, one of the roof supports, will be part of a building two city blocks long and 200 ft. high. The powerhouse ultimately will house nine generators.

ngineering school to ark golden jubilee

n a brief ceremony, curtailed in defer- to wartime conditions, the Engineer- School of Manhattan College, River- k, New York City, will celebrate its den jubilee on Oct. 14. The school s founded in 1892.

Honorary degrees of doctor of engi- ring will be presented by the Most verend Francis D. Spellman, Catholic rchbishop of New York, to: Roy Cum- gs, Muir, vice-president of the Gen- l Electric Co., of Schenectady, N. Y.; Comdr. Emil Hugh Praeger, U.S.N.R., ad of the department of civil engineer- at Rensselaer Polytechnic Institute, oy, N. Y., and Frederick H. Zurmuh- , chief engineer of the Walsh-Driscoll rp., an alumnus of the school.

Reverend Brother Amandus Leo, dean the engineering school, and Reverend other A. Victor, president of the col- ge, will speak briefly. Principal ad- ss will be delivered by Mr. Muir, who ill discuss "Post War Planning."

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Norfork Dam reported half completed

The $28,000,000 Norfork Dam—power nd flood control structure on the north rk of the White River near Mountain ome, Ark.—is now 47 percent com- ete, it was reported last week. The am is expected to be producing power y 1944.

A contract was let recently to the Utah nstruction Co. and Morrison-Knudsen o., contractors for the dam, for the con- ruction of a powerhouse to be 60 ft. ide, 170 ft. long and 110 ft. high. The ructure will cost "in excess of $1,000,- 00." A service building, adjacent to the ower house, will house machine shops, epair equipment and other service ap- aratus.

The dam, one of the largest concrete tructures in the country, will be 2,624 ft. ong with a maximum height of 220 ft. bove the stream bed. Four penstocks, 8 ft. in diameter, have been installed o supply power for two generators event- ally to be placed in the power house. Only one generator, with a capacity of 0,000 kw. will be installed at this time, ork on the second having been sus- ended by a W.P.B. order last month.

THE Union County, Oregon, public tility district will submit a $925,000 evenue bond issue to district voters in the November general election. If voted, the bond issue would provide funds for purchasing the existing power facilities of the Eastern Oregon Power & Light Company, or construction of other facil- ies to carry Bonneville power.

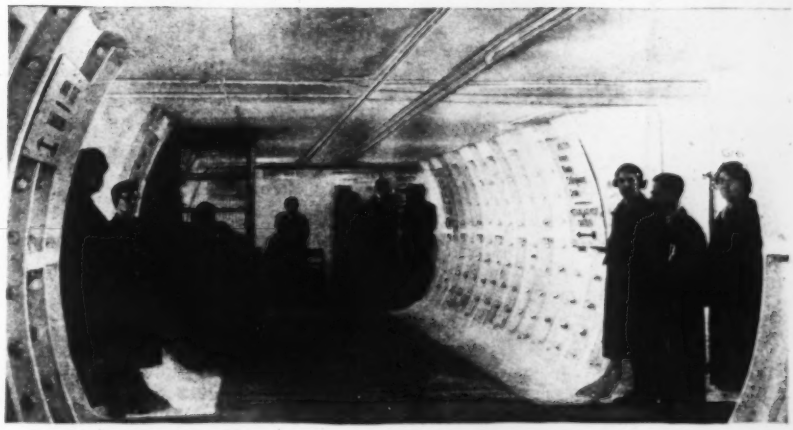


Photo by British Combine

London utilizes deepest tunnels as super air raid shelters

Sections of an underground express railway tunnel, which had been under construction beneath the existing London Transport underground railway system, will be available this winter as air raid shelters in various parts of the British capital. Most of the tunnels are 120 to 200 ft. below the surface, but at least one is more than 300 ft. deep.

The railway tunnel itself is 16 ft. wide, and is reached from special entrance pavilions in regular underground stations by staircases and elevators.

The 16 ft. tunnel serves as a central avenue, from which dormitories, each holding 500 beds, run at right angles. Side passages, similar to the dormitories, will contain miniature hospitals, shops, offices, restaurants and other conveniences. Artificial sunlight lamps are placed against the white painted ceiling for good lighting, and the air is kept crisp by air conditioning equipment.

About 60,000 beds folded when not in use into racks like those above, will be available in eight shelters, and authorities estimate that in a major emergency nearly a million people can find protection in these shelters.

Cleveland appoints new City Planning Commission

Mayor Frank Lausche of Cleveland recently appointed a new seven-member city planning commission, operating under new authority, to replace a group authorized 30 years ago.

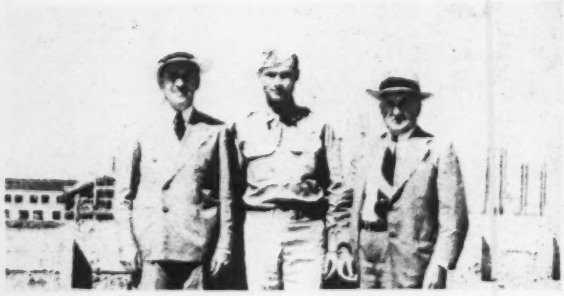
Chairman of the new committee is Ernest Bohn, director of the Metropolitan Housing Authority. Other members are Walter L. Flory, chairman of the mayor's special committee on city planning organization; George B. Mayer, architect; Lucia McBride; Norman L. McGhee, attorney; Peter Slach and Robert A. Weaver, president of a local business firm.

In announcing appointment of the new commission the mayor said it was hoped the group would start immediately to establish effective set-back lines on all major thoroughfares to provide for widening streets to meet the needs of future traffic.

Above: Foundation details for a highway bridge under construction across the Mississippi River at Dubuque are discussed by P. C. PETERSON (left) in charge for Ferd Roberts Construction Co. and La Cross Dredging Corp., substructure contractors, and IVAN P. HANSON, resident engineer, Howard, Needles, Tammen & Bergendoff, consultants.

C. F. APPLETON (right) engineer for the Austin Company has just completed an assignment as project superintendent on a large factory for a major New York State fighter aircraft manufacturing company.

MEN AT WORK



Above: At the Pentagon building in Washington, D. C., are (left to right) JOHN McSHAIN of John McShain, Inc., Doyle & Russel and Wise Contracting Co.; LT. COL. CLARENCE RENSHAW, of the Corps of Engineers; and HENRY S. THOMPSON, special consultant for the office of the Chief of Engineers.

Above: HARRY C. COONS, (left) chief engineer of the Michigan State Highway Department, and J. E. EISENHOUR, project engineer, chat with L. P. SCOTT, senior highway engineer in the Chicago PRA office, on construction of a grade-separation structures on the access road to Willow River.

O. W. HANSEN, (left) engineer of bridge maintenance, Chicago, completes inspection of the machinery room of the California Ave. Bridge over the Sanitary and Ship Canal where rehabilitation of the long unused equipment for opening the bridge is under way.

Below: Des Moines' City Engineer JOHN TIPPEE (left) and Street Commissioner JOHN BUDD looked grim recently as they sat down at 1943 city budget sessions with city councilmen and taxpayer representatives. Efforts were made to slash the city's wartime budget for all departments.

...gree to continue ...ar housing program

(Continued from p. 1)

...$4,750,000. The program, repre...ng one of the largest projects of its ... ever undertaken by the federal ...rnment, contemplates construction ...mporary structures only. The Ar...on Farms project was awarded to ... contractors—John McShain, Inc., ... & Russell and the Wise Contract... Company, McCloskey & Company of ...adelphia were awarded the Suitland ...ract.

...Rochester, N. Y., Chamber of Com...ce officials revealed that while major ...stries are adding workers at the rate ...,000 a month, a survey showed that ... 731 dwelling units were available ... were fit for habitation. The city ...burbs were said to be in a similar sit...ion. In all the towns and villages of ... county, there were only 118 vacant ...elling units and 61 of these were lake...t cottages unfit for winter occupa...

...Baltimore, Md., city officials were wor...d over reported wholesale violations ...the building code, by property own... who were trying to squeeze war work... into old buildings. Joseph A. Clarke, ... building engineer, revealed that ...ny persons have started renovating ... structures without first obtaining per...ts. High labor costs and the shortage ... skilled workers has led some owners ... attempt to make changes in plumbing, ...ating and electrical fixtures without ...fessional supervision, he added.

...Columbia, S. C., civic leaders reported ...at there exists an urgent need for the ...nstruction of at least 200 houses, to ... made available at a reasonable rental. ...runswick, Ga., where work is now in ...rogress on 1,500 war apartments for ...defense workers, also face the need for ...roviding immediate housing for the in...reasing worker influx.

...In New York City, the recent opening ... the Fort Greene houses near the ...Brooklyn Navy Yard was expected to ...id to some extent in the city's housing ...roblem. However, New York, with com...aratively little actual defense work, ...ces a sectional rather than a city-wide ...hortage of space.

...Detroit, Mich., faced with the need to ...rovide housing for an estimated 200,000 ...ersons (*ENR*, Sept. 3, p. 321) eagerly ...atch for approval of an extensive hous...g program.

THE city of Corbin, Ky., has set en...neers to work drawing plans for a ...am on Laurel River to supplement the ...ity's water supply, now being drawn ...om deep wells. Planning an earth ...am, Mayor Bert Rowland said that he ...id not believe priority restrictions ...ould interfere with construction.

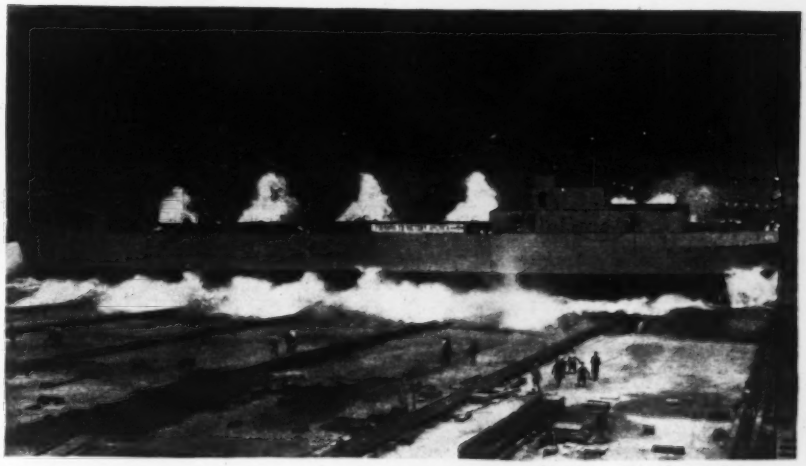


Photo courtesy Dravo Corporation

New type auxiliary vessel gets river baptism

With a mighty splash, a new type landing ship for tanks is launched sideways on an inland river, preparatory to being fitted out for service overseas.

Its exact size and construction a strict military secret, the ship is especially designed for landing armored equipment on hostile shores, and is one of a large number of similar vessels now under construction in several yards throughout the country.

Massachusetts lays plans for raid damage repair

Looking to the possibility and possible consequences of an air attack on any of its cities, the Commonwealth of Massachusetts last week was considering recommendations submitted by its Committee on Postwar Readjustment.

Professor Melvin T. Copeland, of the Harvard University Business School, is chairman of the group.

Under the proposal, a rehabilitation board would be appointed to be composed of the commissioner of public works, the commissioner of public health, the chairman of the state planning board and two persons to be named by the governor. Additionally, an enabling act granting the governor special powers would also be passed.

If a city were raided, the governor would issue an executive order forbidding rebuilding any structures by local authorities for 90 days, excepting when public interest requires quicker action. The rehabilitation committee would then define the bounds of the area to be reconstructed, set dates for issuing building permits, prepare plans for any public improvements, that might be deemed advisable in the area, and make other regulations as may seem to be necessary.

Advantage of this procedure is said to be that it would prevent speculators from purchasing land in the devasted area for resale at higher prices, would make for uniform development of the damaged areas and prevent premature, ill-advised action by well-meaning owners themselves.

Ohio may readvertise road construction job

Engineers of the Ohio Department of Highways last week began revising estimates on two highway projects near Columbus on which the department recently failed to receive a single bid.

The jobs involve the proposed paving of two miles of U. S. Route 224 and construction of a four-span continuous concrete beam bridge with concrete substructure over the Mahoning River in Deerfield and Berlin townships at an estimated cost of $614,000; and paving of about a mile of State Route 14 and the construction of a continuous five-span concrete beam bridge over the Mahoning River in Deerfield township at an estimated cost of $288,200.

Both improvements are necessitated by construction of the Berlin reservoir in Mahoning, Stark and Portage counties by the federal government to increase the water supply for industries in the Mahoning Valley area. Sections on both highways would be inundated by waters of the reservoir and rendered useless when the water reaches its maximum depth.

The possibility of dividing the two construction jobs into smaller projects in order to stimulate bidding on the work has been discussed but no decision in this direction has been reached.

Adding urgency to the problem is a report that the dam will be closed on Dec. 1 and waters shortly thereafter will cover the existing road. Pending definite word on the dam closure from the War Department, engineers said they would go ahead with plans to readvertise.

WASHINGTON HIGHLIGHTS

COL. HANS KRAMER has been promoted to Brigadier General and made chief engineer officer of the Hawaiian Department. Gen. Kramer has been stationed in Hawaii since early last year. Earlier, he was assistant on supervision and maintenance of the Panama Canal Zone and was district engineer at Conchas, N. M. and at Tucumcari, N. M. A native of Germany, 48, Gen. Kramer is a graduate of West Point (1918) and has done graduate work at the University of Pennsylvania and the University of Dresden.

THE Canadian-Alaskan Highway will be ready for service about Dec. 1 the War Department has officially announced, confirming recent unofficial predictions. It is expected that traffic will move throughout the winter until the spring thaw puts it out for several months next April.

MUSICIANS and construction workers may not have much in common, but the current antitrust action against Petrillo and his musicians union will, if successful, have a considerable affect on building practices. Previous department of justice attempts to use the antitrust laws to prohibit union limitations on labor-saving devices have failed in the courts. Now the department is trying to use a loophole opened by the Supreme Court when it ruled, in the Hutcheson case, that a jurisdictional strike does not violate the antitrust law. Only when it conspires with a non-labor group, the court said, can a union violate that law. This month the department will contend in district court that the Petrillo ban on the making of recordings is an attempt to force the radio networks—a non labor group—to conspire with the union to prevent use of records in a labor-saving device, the juke box.

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U. S. to move railroad tracks to critical zones

Railroad tracks deemed unessential to movement of troops and war supplies at their present locations will be moved to points where they can be used for that purpose, according to a statement by the War Production Board recently. The statement was made in explaining that rails of the Elkhart and Santa Fe Railroad's line from Boise City, Okla., to Farley, N. M., had been requisitioned to provide trackage for naval supply depots on the Pacific Coast. Part of the trackage also will be used to speed completion of a new arsenal near McAlester, Okla.

F. H. Robbins, N. Y. water supply designer, retires

Franklin H. Robbins, designing engineer for the New York Board of Water Supply, and an employee of the board since 1907, retired from active service recently.

A graduate of Massachusetts Institute of Technology, Mr. Robbins began work for the board in 1907 as assistant engineer designer, and in [illegible] was made designing engineer. In the [illegible] the department engineer was in charge of work on specifications, hydraulic determinations and studies, and designs for shafts and [illegible], steel pipe distribution lines, operating chambers, sewage disposal works, model tests and other studies and de[illegible]

Speeding the War Effort:

Bending every possible effort toward strengthening America's war participation, engineers and constructors throughout the nation are advancing new production ideas, new methods of doing their jobs, finding new sources and uses for critical materials. Some of the results last week were:

The Corps of Engineers informed the War Department that it expects to save more than 15,000,000 gallons of fuel oil per year through conversion of oil burners on military establishments to coal burners.

With conversion in view, the Repairs and Utilities Branch of the Office of the Chief of Engineers several months ago began a survey of boilers and furnaces on Army posts and reservations, in the First, Second and Third Service Commands. A preliminary report shows that 27 central heating plants, aggregating 13,820 hp. are now being changed to coal burners. Central heating units for manufacturing plants, airports, hotels, laundries, ports of embarkation, office buildings and other types of property owned or leased by the Army are included in the equipment being made ready for the use of coal by hand firing or automatic stokers.

* * *

In another move toward aiding the nation's war program by recovering scrap metal, the Corps of Engineers announced that it is making complete surveys of the Mississippi, Ohio, Missouri, Kentucky and Tennessee Rivers to determine how much sunken material in these streams is recoverable as scrap metal. The survey is being conducted under the auspices of the Special Projects Section, Conservation Division, War Production Board, and the Metal Reserve Corporation.

The corps has a record of all sinkings where obstructions to navigations have occurred. In addition, Capt. Joseph Curtis, river editor of a Memphis newspaper, has made his records, including more than 2,000 sinkings, available to the engineers.

* * *

In Ohio, the Department of Highways began a unique search—a search for abandoned, obsolete and easily replaced bridges to be broken up as scrap. Governor John W. Bricker instructed the department that many old bridges on township and county roads might be found and that they might be converted into scrap. Some of the structures could be replaced by timber.

* * *

A vast expansion of the country's facilities for recovering tin and steel from tin cans was announced by the War Production Board. Seventeen new shredding plants to recapture the tin and the steel from the cans will be erected under the program, the first four to be ready about the first of the year. All new plants are expected to be in operation next summer, to boost the amount of tin cans reclaimed from the present total of 30,000 tons a year to 500,000 tons.

* * *

The metal recovery front advanced further with the Pennsylvania Railroad announcement that it has stepped up its scrap collection program to a point where the road is producing a total of from 25,000 to 35,000 tons of scrap monthly—of which 18,000 to 20,000 tons are shipped to steel mills. Recovery of about 118 tons of old street car rails has been effected from the streets of Salisbury, N. C. Discovery that the State of Arkansas has eleven war needed materials—manganese, antimony, cadmium, cryolite, fluorspar, graphite, titanium, mercury, quartz crystal, mica, and beauxite was announced. At Pittsburgh, E. R. Franc, mining engineer, announced he was using obsolete construction equipment to "mine" six great slag dumps in western Pennsylvania and Ohio to obtain a total of from 5,000 to 7,000 tons of high-grade heavy steel scrap.

* * *

The advent of women in the engineering field moved another step towards acceptance, when 35 women, graduates of eight to ten weeks courses in engineering drafting and technical calculation were released from Stanford University to do war jobs. Columbia University announced courses in advanced training for women.

OBITUARY

Alvin D. Wilder, 57, director of the San Francisco Department of Public Works and former state director of the PWA, died recently in a San Francisco hospital. A native of Oakland, Cal., Mr. Wilder had since 1915 been engaged in construction work on railways, harbors, highways and water power projects. As chief engineer of the Sydney E. Junkins Corp., he was in charge of constructing a huge tunnel and harbor development project for the Canadian Pacific Railway. He became chief engineer in California for the PWA in 1934 and left a year later to become head of the engineering department of the San Francisco Housing Authority.

Chester R. Chadwick, for many years a structural engineer with the Stone & Webster Engineering Corp. of Boston, Mass., died September 24. He was a native of Lonsdale, R. I., and a graduate of Worcester Polytechnic Institute.

George B. Heilner, 50, retired civil engineer of Elizabeth, N. J., died there recently.

Joseph L. Swanson, Jr., 31, construction engineer of New Orleans, La., died recently after an automobile accident. He had been a construction engineer for The Texas Co. for the past six years.

Orrin George Bunsen, 75, American civil and railroad construction engineer in Mexico since 1893, died in Mexico City September 13.

Conrad F. Boos, 69, for 16 years an engineer in charge of construction with the Electric Co. of Milwaukee, Wis., died there September 23.

Chester A. Slocum, 58, a partner in the engineering firm of Slocum and Fuller, of New York, died recently at Long Branch, N. J.

Clare H. Currie, 60, president of the Currie Engineering Co., consulting engineer of Webster City, Iowa, died September 17. A past president of the Iowa Engineering Society and Iowa Section of the American Society of Civil Engineers, he had served on the Iowa State Board of Engineering Examiners for 12 years.

Gurney Thomas Royals, 60, superintendent of streets at High Point, N. C., for the past 11 years, died September 22.

Charles G. Boyatt, 62, construction engineer at Massillon, Ohio, died there recently.

Ralph Adams Cram, 78, internationally known architect who redesigned the Cathedral of St. John the Divine in New York, died at Boston, Mass., September 22.

Clarence H. Winans, 88, founder and president of a road contracting company bearing his name, died September 22 at Linden, N. J.

William A. Taylor, 62, building contractor of Louisville, Ky., died September 23.

John F. Powers, member of the Conshohocken, Pa. town council, and a local building contractor, died recently. He was 43.

Let contracts for new alien internment camps

The U. S. Engineer Office at Vicksburg, Miss. has announced letting of a fixed fee contract for about $2,000,000 for the construction of an alien internment camp at Como, in Panola County, Miss. The contract was awarded to the Associated Architects and Engineers for Governmental Service, of Little Rock, Ark.—a coalition of the engineering firm of MacCrea-Bair-Lefever, and H. Ray Burks, Erhart & Eichenbaum, Wittenberg & Deiony and Theo. M. Sanders.

Contract for erection of temporary buildings at a camp at Jerome, Miss., has been let to A. J. Rife Construction Co., Dallas, Texas.

CONTRACTS AND CAPITAL

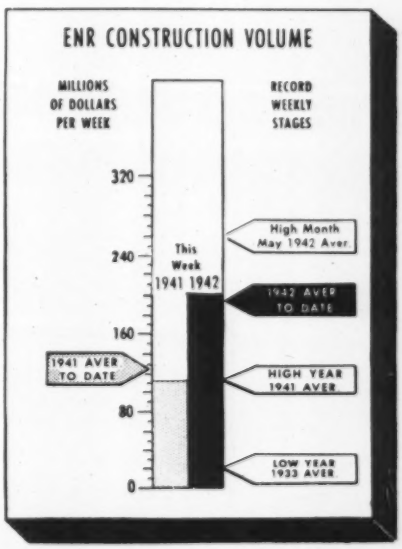
ENGINEERING CONSTRUCTION tops the $200,000,000-mark for the sixth time in the past eight weeks, climbing to $203,321,000 for the period. The week's volume is 82 percent above that reported for the corresponding week last year, and 37 percent higher than in the preceding week. Public construction more than doubles last year's mark, and is 39 percent above a week ago as a result of the 155 and 38 percent gains in federal work. Private construction drops 45 percent from the 1941 week, but is 20 percent higher than last week.

The current week's total brings the 1942 volume to $7,835,927,000, an increase of 58 percent over the construction reported for the 40-week period in 1941. Private work, $483,847,000, is 51 percent below the volume for the period last year, but public construction, $7,352,080,000, is up 85 percent as a result of the 131 percent gain in federal work.

In the classified construction groups, gains over last week are in waterworks, sewerage, bridges, public buildings, and unclassified construction. Increases over the 1941 week are in waterworks, sewerage, public buildings, streets and roads, and unclassified construction.

New capital for construction purposes for the week totals $1,867,000. This volume, entirely state and municipal bond sales, compares with $30,143,000 reported for the corresponding week last year.

New construction financing for the year to date, $9,532,568,000, is 62 percent above the total for the 40-week period in 1941.



CONTRACTS

(Thousands of dollars)

	Week Ending Oct. 2 1941	Sept. 24 1942	Oct. 1 1942
Federal	$ 72,019	$132,736	$183,832
State & Municipal	23,169	7,344	10,382
Total public	$ 95,188	$140,080	$194,214
Total private	16,518	7,619	9,107
TOTALS	$111,706	$147,699	$203,321
Cumulative 1942	(40 weeks)		$7,835,927
1941	(40 weeks)		$4,955,584

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1941 40 weeks	1942 40 weeks
NON-FEDERAL	$1,064,902	$565,670
Corp. Securities	317,267	169,889
State & Mun.	359,400	183,626
U.S.H.A. loans	30,399	
R.E.A. loans	100,500	
R.F.C. loans	94,336	129,455
Fed.-Aid—Highways	163,000	82,700
FEDERAL	$4,826,118	$8,966,898
TOTAL CAPITAL	$5,891,020	$9,532,568

ENR INDEX NUMBERS

		1913	1926
Index Base = 100			
Construction Cost	Sept. '42	281.61	135.37
Building Cost	Sept. '42	225.46	121.88
Volume	Aug. '42	622	273

FHA MORTAGES

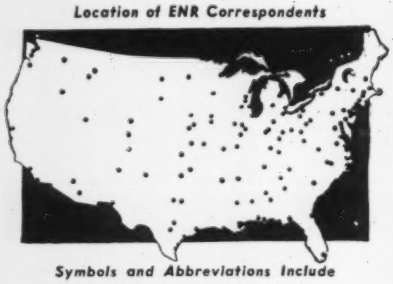
	Week Ending Sept. 27 1941	Sept. 19 1942	Sept. 26 1942
Selected for appraisal			
Title II	$26,773	$6,107	$6,416*
Title VI	$3,371	$14,865	$16,158*

* Subject to revision.

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

Location of ENR Correspondents



Symbols and Abbreviations Include

† Federal Government
★ Project of $500,000 or over
ENR Engineering News-Record
CD Engineering News-Record Construction Daily
A-E-M Architect — Engineer-Management type of contract.

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger; water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply	Unclassified
Sewers, Waste Disposal	Latin America
Bridges, Grade Cross'gs	Public Buildings
Streets & Roads	Commercial Buildings
Earthwork, Waterways	Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Note: To comply with censorship requirements, addresses on some reports are being generalized. Data which would reveal the purpose of the improvements and the size are withheld. The name of contractor and general area are reported.

WATER SUPPLY

PROPOSED WORK

★**Conn., Hartford**—Bd. Contr. & Supply, Metropolitan Dist., rejected bids Sept. 21, clearing, grubbing, upper portion Barmhamsted Reservoir, in Barkhamsted and Hartland. CD 9/24, under LB.

†**Georgia**—U. S. Eng., Courthouse & Customhouse, Mobile, Ala., bids soon, water and sewerage sys., Chattahoochee Co. J. W. Goodwin & E. B. Van Keuren, Martin Bldg., Birmingham, Ala., engrs.

†**Kan., Wichita**—City, waterworks exten., Docket 14-226, 75,000. **FWA.**

Minn., Savage—M. F. Zeller, village clk., water supply sys., tank, tower, distr. lines, etc., also sanitary sewerage sys., lines, disposal plant. $150,000. H. A. Davis, 800 Simpson St., St. Paul, engr.

Neb., Lincoln and Ashland—City of Lincoln, H. Berg, clk., addnl. wells, pumps, booster pumps, at Platte River near Ashland. $25,000.

†**N. C., Elizabeth City**—City received no bids Sept. 18, WW. sys. and extens. N.C. 31-208 (Serial 28440). **FWA.** P. M. Van Camp, Southern Pines, engr. CD 9/15—9/3.

Pa., Erie—Park & Harbor Comn., Erie, c.i. watermains, pump. sta., filter plant. Over $25,000.

★**Tex., Amarillo**—City, A. P. Hancock, mgr., water sys. $624,496. FWA funds applied for. Freese & Nichols, Capps Bldg., Fort Worth, engrs.

Tex., Bonham—R. T. Lipscomb, city secy., WW sys., $25,000. Applied for FWA funds. Freese & Nichols, Capps Bldg., Fort Worth, engrs.

†**Wash., Milton**—Milton Water Dist., Milton, enlarging water sys., 300,000 gal. ground storage reservoir, 9,200 ft. 2 and 4-in. pipe. Docket 45-221. $27,200. **FWA.** Parker & Hill, Smith Tower, Seattle, engrs.

Wis., Madison—L. A. Smith, supt. Water Dpt., 2 mg. reservoir $90,000; distr. sys. addnls. $216,000; service bldg. $85,000; imprv. Monona Golf Course area $105,000.

†**Pacific Northwest**—U. S. Eng., 810 3 Ave., Seattle, Wash., water distr. and sanitary sewerage sys.

BIDS ASKED

Bids Asked October 13

†**La., Alexandria** — City, W. G. Bowden, mayor, Contr. 3, water sys., La. 16-117. Total est. cost $333,000. **FWA.** Plans deposit 5% of amount of bid. I. W. Sylvester, city engr. CD 12/9—ENR 12/11.

Bids Asked October 18

La., Alexandria—Watermains, etc.

Bids Asked About October 20

★†**Tex., Hooks**—City, c/o J. R. Quinn, mayor, WW and sewers, Tex. 41-384. $960,000. J. J. Rady, Insurance Bldg., Fort Worth, engr.

LOW BIDDERS

†**California**—U. S. Eng., 751 S. Figueroa St. Los Angeles, Sept. 21, water and sewerage sys., No. 266, from C. O. Brand, 3696 Everest St., Los Angeles, over **$100,000.** CD 8/24—ENR 8/27.

Md., Baltimore—City, Bd. Awards, City Hall, Sept. 9, core borings for Liberty Dam on North Branch Patapsco River, Baltimore and Carroll Counties, from Sprague & Henwood, Inc., 221 W. Olive St., Scranton, Pa., **$26,400.**

★†**Pa., Phila.**—Dpt. P. Wks., Bureau Water, City Hall Annex, Sept. 23, Queen Lane, filter plant, Contr. 126, from Joseph Lombardi & Sons, 735 Real Estate Bldg., **$1,830,824.** CD 7/8—ENR 9/10.

†**Wash., Kirkland**—Federal Works Agency, Alaska Bldg., Seattle, Sept. 17, WW sys., 5.4 mi. 2- to 12-in. pipe, pump. sta., 500,000 gal. concrete reservoir and impounding basin, from Valley Constr. Co., 8423 48 Ave. S., Seattle, **$131,656.** CD 9/10—ENR 8/20.

CONTRACTS AWARDED

†**Colorado**—U. S. Eng., Albuquerque, N. M., water supply wells, Prowers Co., to Hollow Drilling Co., Inc., Wichita, Kan. Under **$50,000.**

†**Florida**—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, water and sewerage sys., Levy Co., to Ryan Constr. Co., Stovall Office Bldg., Tampa, under **$50,000;** electrical distr. sys., Levy Co., to Enlow-Price Co., Live Oak, under **$50,000.** CD 8/31—ENR 9/3.

†**Florida**—U. S. Eng., Court House, Jacksonville, WW. and sewerage sys., Hernando Co., to M. R. Vaughn, 6018 Orange Blossom Ave., Tampa, under **$50,000.**

†**Illinois**—U. S. Eng., 520 Merchandise Mart, Chicago, water supply main, Cook Co., to Michael Pontarelli & Sons, 4248 N. Kilpatrick St., Chicago, **$50,000-$100,000.**

†**Illinois**—U. S. Eng., Clock Tower Bldg., Rock Island, constructing revisions to well, Carroll Co., to Varner Well Drilling Co., Inc., 905 Dubuque Blvd., Dubuque, Ia., under **$50,000.**

†**Kansas**—U. S. Eng., 10 E. 17 St., Kansas City, Mo., wells, Dickinson Co., to Air Made Well Co., Ry. Exch. Bldg., Kansas City, Mo., under **$50,000.**

†**Louisiana**—U. S. Eng., foot Prytania St., New Orleans, water distr. and sanitary sewerage sys., Tangipahoa Co., to R. B. Tyler Co., 1446 Levering St., Louisville, Ky., and Couch Constr. Co., Dotham, Ala., **$50,000-$100,000.**

★†**Louisiana**—U. S. Eng., foot of Prytania St., New Orleans, pump. station, and force main, to Wm. F. Kelly Co., 415 Baronne St., New Orleans. Est. under **$1,000,000.**

†**Louisiana**—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, Miss., water supply wells, to Elevens Water Well, Glenmore. Est. under **$50,000.**

†**Me., Portland** — Portland Water Dist., watermains (land lines) Contr. 2, Me. 17-134, to Wyman & Simpson, Inc., 283 Water St., Augusta. **FWA.** CD 8/21—ENR 8/27, under CA.

†**Maryland**—U. S. Eng., Standard Oil Bldg., Baltimore, water range and main front, Hartford Co., to Boyd H. Kline, Bloomsburg, Pa., **$50,000-$100,000.**

†**Md., Elkton**—Federal Works [illegible] State Planters Bank Bldg., [illegible] water facilities, 20,500 ft. distr. [illegible] plant addn., to Charles J. Spelm[illegible] 2210 Russell St., Baltimore, $70,[illegible] 400. CD 9/17.

†**Michigan**—U. S. Eng., 700 U[illegible] Bldg., Detroit, water pump. sta., [illegible] to Couse & Saunders, 12740 Ly[illegible] troit, **$100,000-$500,000.**

★†**Michigan**—U. S. Eng., U[illegible] Bldg., Detroit, watermains, sa[illegible] service connections, Crawford Co., [illegible] & Mickelsen, 3340 Fenkell Ct., Detr[illegible] $50,000-$100,000; clearing, grubbing, grad[illegible] removing existing work, electric[illegible] services, topsoiling and seeding, C[illegible] to P. C. Miller, Sparta, **$500,000-$1,000,000.**

†**Mississippi**—U. S. Eng., [illegible] Mobile, Ala., well, Harrison Co., to [illegible] Co., 18 S. Water St., Mobile, A[illegible] under **$50,000.**

†**Mississippi**—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, water supply wells, Grenada Co., to Layne-Central Co., Millsaps Blvd., Jackson, under **$50,000.**

†**Nebraska**—U. S. Eng., 10 E. 17 St., Kansas City, Mo., water distr., sewage collection sys., storm sewers, Redwillow Co., to Hoover & Record Co., W. C. Fraser & Son, Phelps-Drake Co., 700 Flour Ex. Bldg., Minneapolis, Minn., **$100,000-$500,000.**

†**Nebraska**—U. S. Eng., 1709 Jackson St., Omaha, water wells, scotts Bluff Co., to Randecker Machine & Mfg. Co., Lexington, under **$50,000.**

O., Vandalia—Village, reservoir and pump. sta., to A. J. Glazer Co., Muncie, Ind. $39,059. Est. $50,000. G. R. Steller, 213 Monterey Ave., Dayton, engr.

†**Oklahoma**—U. S. Eng., 231 W. Main St., Denison, Tex., water softening equip., Grady Co., to Culligan Zeolite Co., Northbrook, Ill., under **$50,000.**

†**Rhode Island**—U. S. Eng., 819 Industrial Trust Bldg., Providence, water distr. and sewage disposal sys., Washington Co., to G. E. Duteau, 90 Cloran St., Springfield, Mass., under **$50,000.**

S. D., Sioux Falls—C. M. Whitfield, city aud., 2 wells, to Acme Concrete Co., Sioux Falls, **$37,392.** Bids 9/8. CD 8/6—ENR 8/13.

†**Texas**—U. S. Eng., San Antonio, test well, Coryell Co., to Layne-Texas Co., 6931 Harrisburg Rd., Houston, under **$50,000.**

†**Texas**—U. S. Eng., San Antonio, tank and tower, Hays Co., to Clardy Constr. Co., Fort Worth, under **$50,000.** CD 8/20, under BA.

Tex., Galveston—Imprv. water sys., chlorination sys., lines, etc., to Wallace & Tiernan Co., Belleville, **$34,297.** Ford, Bacon & Davis, Inc., Santa Fe Bldg., engrs.

†**Washington**—U. S. Eng., 810 3 Ave., Seattle, drilling test wells, to Patterson Drilling Co., Olympia, under **$50,000.**

†**Washington**—U. S. Eng., 810 3 Ave., Seattle, water supply and sewerage sys., Whatcom Co., to Washington Lumber Co., 3447 4 Ave. S., Seattle, under **$50,000.** CD 6/16—ENR 6/18.

Wis., La Crosse—Drilling wells, to Layne-Northwest Co., 709 N. 11 St., Milwaukee, **$29,220.** Bids 8/27. CD 8/18—ENR 8/20.

†**Wyoming**—U. S. Eng., 1709 Jackson St., Omaha, Neb., installing water softeners, Natrona Co., to E. Hirschfield, Casper, under **$50,000.**

SEWERS—WASTE DISPOSAL

PROPOSED WORK

Ala., Sheffield — Sewerage and water sys. exten. J. W. Goodwin, Martin Bldg., Birmingham, engr.

†**Calif., Richmond**—City, J. A. McVittie, city mgr., main outfall sewer along 10 St. $213,200. **FWA.** E. A. Hoffman, City Hall, engr.

†**Colo., Lakewood**—City revised plans sewage plant and sanitary sewers, FWA 5-131, $350,000. **FWA.** H. M. Strong, Arvada, engr. CD 5/26—ENR 5/28.

★†**Conn., Bridgeport**—Dpt. P. Wks., sewage disposal plant, East End, Seaview Ave. and Walker St., and addnl. expansion Boswick Ave. plant, West End. $3,000,000. **FWA.**

Conn., New Canaan—Town, C. E. Costales, first selectman, Town Hall, incinerator and 100 ft. stack changes. $25,000. H. W. Taylor, 9 Park Pl., New York, N. Y., engr.

SEWERS, etc. (Proposed Work, Cont'd.)

†Illinois—U. S. Eng., 800 Courthouse & Customhouse, St. Louis, Mo., engineer-architect services by Russell & Axon, 4903 Delmar St., St. Louis, Mo., sewage disposal plant, Saint Clair Co.

La., Houma—Concrete outlet box and 24 in. storm sewer pipeline.

Minn., Duluth—C. D. Jeronimus, city clk., sanitary sewer Woodland Addn, $85,500; general imprvs. sewerage sys. $25,500.

Mo., Rock Hill (br. St. Louis)—Village, 925 Rock Hill Rd., St. Louis, exten., imprv. sewers. $25,000. Bonds voted.

N. J., Belleville—24 in. concrete storm sewer in Celia Terrace, catch basins at corner Celia Terrace, Carpenter St. and Continental Ave. $41,000, WPA. H. Welsh, Town Hall, engr.

N. J., Bloomfield—Town, 15- to 54-in. rein.-con. sewers with repaving, imprvs., etc. $58,490. WPA. C. Malstrom, Orange and N. 6 Sts., Newark, engr.

N. J., East Orange—City, 12 and 15 in. concrete storm sewers Several Terrace, Everett, Sanford, William, Main Sts., et al. $55,000. WPA. C. Malstrom, Orange and N. 6 Sts., Newark, WPA engr.

N. J., Secaucus—12 in. rein.-con. sanitary sewers. $52,500. WPA. C. Malstrom, Orange and N. 6 Sts., Newark, WPA engr.

†North Carolina—City received no bids Sept. 18 sewer exten., Docket N.C. 51-207, (Serial 2435). **FWA.** P. M. Van Camp, Souther Lines, engr. CD 9/15—ENR 9/3.

O., Canton—Storm water sewer North Market Heights Dist., $94,925; Fairmount Park Dist. $214,005. J. A. Shisler, city engr.

O., Newark—Plans election to vote bonds sanitary sewerage sys., eastern portion city. $40,000-$50,000.

†Oklahoma—U. S. Eng., 416 Wright Bldg., Tulsa, bids soon addnl. sewage treatment plant. $75,000. Plans deposit $50.

†Oklahoma—U. S. Eng., 231 W. Main St., Denison, Tex., sewer, water, gas utilities. $80,000.

Pa., Corry—G. B. Porter, city clk., exten. Rear Creek Sewer, storm sewer Smith St. $35,000. D. D. Williams, city engr.

Tex., Houston—G. L. Fugate, engr., City Hall, sanitary sewers in Napoleon, Bremond and Rosale Sts. $80,000.

Tex., San Antonio—Bexar Co. Water Control & Imprv. Dist. 8, c/o C. Fenstermake, pres., Terrell Hills, deferred bids to have been opened Sept. 18, sewerage collecting sys., pump. sta., force and outlet mains. Terrell Bartlett Engineers, Smith-Young Tower, Sewers engrs. CD 9/4—ENG 9/10.

†Washington—U. S. Eng., 800 3 Ave., Seattle, engineer-architect services by Austin Co., Dexter Horton Bldg., Seattle, drainage sys. and paving, Pierce Co.

Wash., Spokane—Lincoln Heights subtrunk sewer. $34,210.

Wis., Bayfield—H. Sense, city clk., making surveys repairing sewerage sys. caused by floods, drainage ditches, culverts, etc. $80,000.

Wis., Milwaukee — Metropolitan Sewerage Comn., Jones Island, 30 in. vitr. clay sewer, W. Lincoln Ave. and 27 in. vitr. clay sewer, Washington Highlands. $100,000. J. L. Ferebee, c/o owner, ch. engr.

†Pacific Northwest—U. S. Eng., 810 3 St., Seattle, Wash., sewerage sys.

BIDS ASKED

Bids Asked October 5

N. Y., Great Neck—Bd. Comrs. Belgrave Sewer Dist., Little Neck, imprv. sewerage sys. $100,000. Extended date. CD 9/23.

Bids Asked October 8

★**†Ala., Mobile** — City, C. A. Baumhauer, mayor, exten. sewerage sys., Docket Ala. 1-185(1-148), $868,000. **FWA.** Plans deposit $25. J. B. Converse & Co., Inc., Wilson Bldg., engrs. CD 3/4—ENR 3/12.

Bids Asked October 19

†Va., Newport News—City, incinerator stack and 2 story, concrete, brick structure. $79,500. **FWA.** J. C. Biggins, city mgr. CD 4/22—ENR 4/30.

Bids Asked About October 20

†Tex., Fort Worth—Tarrant Co. Water Control & Imprvt. Dist. 3, c/o J. R. Meeker, pres., sewer imprvs., Tex. 41-489. $224,700. J. J. Rady, Insurance Bldg., engr.

LOW BIDDERS

Calif., Los Angeles—Los Angeles Co., Sept. 22, sanitary sewers in Overhill Dr., et al, County Imprvt. 1036, from M. N. Guho, 3470 Olympiad Dr., **$52,134.** CD 9/1—ENR 9/3.

†Tennessee—U. S. Eng., P. O. Box 97, Memphis, sewage treatment plant, No. 1092-43-76 F from B & B Constr. Co., Wichita Falls, Tex., **$50,000-$100,000.**

†Texas—U. S. Eng., 231 W. Main St., Denison, sanitary sewer collection and water distr. lines, facilities, Inv. 257-43-43 (in part) from R. B. Adams, 414 1st Natl. Bank Bldg., Fort Worth, **$50,000-$100,000.**

†Wash., Renton—City, Sept. 22, sewage treatment plant, etc., from B. H. Sheldon, Corvallis, **$199,000. FWA.** CD 9/15.

CONTRACTS AWARDED

†Florida—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, sewerage sys., Sarasota Co., to J. B. Green Plumbing & Equip. Co., Sarasota, under **$50,000.**

†Indiana—U. S. Eng., Federal Bldg., Louisville, Ky., expanding sewage treatment plant, Marion Co., to E. H. Marhoefer Jr. Co., 222 W. North Bank St., Chicago, Ill. **$100,000-$500,000.**

†Kansas—U. S. Eng., 10 E. 17 St., Kansas City, Mo., sewage and water distr. sys., Dickinson Co., to Rhoades Constr. Co., Newton, **$50,000-$100,000.**

†Louisiana—U. S. Eng., foot of Prytania St., New Orleans, sewage pump. station, outfall pressure line, pump house, etc., Rapides Co., to Wm. F. Kelly Co., 415 Baronne St., New Orleans, **$50,000-$100,000.**

†Massachusetts—U. S. Eng., 819 Industrial Bldg., Providence, R. I., sewers, drains, to E. M. Matz, Inc., 101 Moraine St., Jamaica Plain. Est. **$25,000.** Bids 9/17. CD 9/14.

†Massachusetts—U. S. Eng., Park Square Bldg., Boston, sewage disposal sys., Middlesex Co., to G. Reppucci & Sons, Inc., 10 Garden Court St., Boston, Mass. Est. over **$25,000.** CD 9/24.

★**†Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, storm water pump. station, Macomb Co., to Couse & Saunders, 12740 Lyndon Ave., Detroit, less than **$1,000,000;** roads, walks, parking areas, drains, Macomb Co., to Sachs & Lodewyk, 1113 Lafayette Bldg., Detroit, less than **$1,000,000.**

†Nebraska—U. S. Eng., 1709 Jackson St., Omaha, Neb., drainage sys., Scotts Bluff Co., to Kramma, Jensen & Welden, Des Moines and Iowa Falls, Ia., **$100,000-$500,000.**

N. J., Rahway—8 in. vit. tile sewer, to J. Conroy, 1177 Kline Pl. F. A. Hedeman, 1470 Campbell St., engr.

†N. C., Wilmington—Federal Works Agency, 3 State Planters Bank Bldg., Richmond, Va., exten. sewerage sys., to A. H. Gulon & Co., Kinney Bldg., Bldg., Charlotte, **$29,725.** Est. $32,300. CD 9/15—ENR 9/17.

Pa., Pittsburgh—Brick trunk sewer Watson St. from 5 to Forbes Sts., to C. D. Thomas & Co., 3616 5 Ave., **$67,200.** Bids 8/24. CD 8/19.

†South Carolina—U. S. Eng., Sumter, sewerage sys. Richland Co. to Reed & Abee, Inc., Fairview Rd., Asheville, N. C. **$50,000-$100,000.** Bids 9/22.

†Tennessee — U. S. Eng., P. O. Box 97, Memphis, Tenn., sewage treatment plant, Dyer Co., to B and B Constr. Co., Wichita Falls, Tex., **$50,000-$100,000.**

†Texas—U. S. Eng., Fort Sam Houston, sanitary sewer collection facilities, also water distr. facilities, Spec. 42-347 in part, to I. L. Holleman Plumbing Co., Bay City, under **$50,000.** Awarded 9/21.

†Washington—U. S. Eng., Pittock Blk., Portland, Ore., incinerator, Clark Co., to McManama & Co., Portland, Ore., under **$50,000.**

BRIDGES, GRADE CROSSINGS

PROPOSED WORK

Louisiana—State Dpt. Hys., Baton Rouge, temporary pontoon bridge over Bayou Teche, Iberia Parish; vertical lift highway bridge to replace swing span highway bridge over Bayou Black, Terrebonne Parish.

Pennsylvania—State Hy. Dpt., I. L. Hughes, secy., Harrisburg, repairing, strengthening bridge carrying State Hy. Route 5 over Lehigh Valley R.R., Plains Twp., Luzerne Co. $30,797. T. C. Frame, ch. engr.

BIDS ASKED

Bids Asked October 6

Iowa—State Hy. Comn., Ames, flume addn. to concrete box culvert, 5 concrete box culvert extens., P-651, FN-155 and FN-341, on Iowa 92, Cass Co.; concrete box culvert and flume, 3 concrete box culvert extens., raising concrete box culvert, etc., FA-842-C(1) on U.S. 34, Mills Co.; raising 24x32 ft. I-beam bridge P-638, on Iowa 35, Monona Co.; constructing 20x24 ft. and 24x40 ft. I-beam bridges on FSN 289, County Trunk Rd. C, Pocahontas Co.; 5 rein.-con. box culvert extens., etc., P-45 and FN-2, on U.S. 20, Woodbury Co. F. R. White, Ames, ch. engr.

Bids Asked October 7

Michigan—State Hy. Dpt., Lansing, 8 span rein.-con. grade separation Outer Dr., Allen Park, Detroit, 6 span rein.-con. grade separation Oakwood Blvd., at Detroit (Melvindale) for Wayne County Rd. Comn., and State Hy. Dpt., Lansing. Plans deposit $3 each project.

Bids Asked October 9

Kansas—State Hy. Dpt., Olathe, Br. 5.4, 98 ft. pony truss underpass, FAGH 315 F also Bridge 4.0 widening 30 ft. deck girder, DA W2 11, both Johnson Co. R. C. Keeling, Topeka, engr.

LOW BIDDERS

Connecticut—State, W. J. Cox, comr., Hartford, Sept. 24, substructure, Prospect St. Bridge over Park River Express Hy., Hartford, from Mariani Constr. Co., 822 Forbes Ave., New Haven, **$49,122.** CD 9/21.

O., Canton—2 concrete bridges over East Creek, one at 19 St. S.E., other 11 St. S.E., from A. & M. Diano Constr. Co., 1000 Warner Rd. S.E., **$38,839,** est. **$37,177** and **$72,390,** est. **$72,535** respectively. CD 6/22—ENR 6/25.

CONTRACTS AWARDED

Arkansas—State Hy. Dpt., Little Rock, 3 bridges near Newport and 2 bridges near West Memphis, to Pioneer Constr. Co., Malvern, **$52,982** and **$65,820** respectively. Bids 9/17. CD 9/10.

Tenn., Columbia—Temporary bridge, rigging, cribbing rebuilding intake in Cumberland River for city water sys., to Columbia Foundation Co., Columbia.

STREETS AND ROADS

BIDS ASKED

Bids Asked October 5

New Jersey—S. Miller, Jr., comr. State Hy. Dpt., Trenton, grading, paving 2.618 mi. Route 6, Sect. 9a, Union Ave. to Valley Rd., Project SN-FAP-131H(1), Passaic Co. Plans deposit $10.

Bids Asked October 6

Iowa—State Hy. Comn., Ames, paving, grading, 1.957 mi. FA-842-S (1) on U.S. 34; 0.88 mi. FAGH-842-B (1) on U.S. 34; 4.81 mi. FA-842-C(1) on U.S. 34, all foregoing Mills Co.; grading 20,118 cu. yd. FN-14, Harrison Co.; 13,700 cu. yd. P-638, on Iowa 35, Monona Co.; 29,288 cu. yd. P-643 on U.S. 169, and 0.464 mi. P 876 on Iowa 5, both Webster Co.; gravel maintenance resurfacing 9,150 cu. yd. M 3265, Monona and Woodbury Counties; 2,950 cu. yd. M 1242, Iowa 141, Polk Co.; 8,910 cu. yd. M 4244 Pottawattamie Co. F. R. White, Ames, ch. engr.

Bids Asked October 6

Ohio—State Hy. Dpt., Columbus, widening, waterbound macadam and bituminous surface treating 5.086 mi. Sect. D Conesville, and C-2 of SH 47, Coshocton Co., $37,040; grading, draining, concrete paving Sect. Sylvania of SH 980, Lucas Co., $32,500; asphaltic concrete resurfacing 6.437 mi. Sect. Fredericktown, Mt. Vernon, C-1 and C-2 of SH 233, Knox Co., $62,100; 7.279 mi. Sects. R and S of SH 14, Portage Co., $89,930.

Pa., Pittsburgh—Comrs. Allegheny Co., asphalt widening and relocation, channel change to eliminate 2 bridges, Streets Run Rd. L. B. Duff, County Office Bldg., engr.

Virginia — Dpt. Hys., Richmond, concrete paving 1.3 mi. Norfolk Co., no bids received Sept. 24; waterbound macadam paving 4.5 mi. Route 11, Pulaski Co., $350,000. CD 9/17.

Bids Asked October 7

Louisiana — State Hy. Dpt., Baton Rouge, 2,250 cu. yd. iron ore surfacing material on Ivan-Emma Hy., State Route 184-E, S.P. 808-01-03, Bossier Parish; 3,240 cu. yd. washed gravel on S.P. 901-01-34, Lafayette Parish; 9,098 cu. yd. S.P. 901-01-41, Grant Parish; 2,600 cu. yd. S.P. 901-01-42, Morehouse Parish. W. Prescott Foster, dir.

Bids Asked October 9

Kansas — State Hy. Dpt., Olathe, grading stabilization 2.538 mi. DAWI 11, 0.568 mi. FAGH 315F, 1.079 mi. FA 315F, all Johnson Co. R. C. Keeling, Topeka, engr.

Tennessee — State Road Dpt., Nashville, grading, drainage, paving 2.04 mi. Elliston Rd., Shelby Co.

Bids Asked October 14

California—State Div. Hys., Sacramento, grading, concrete and asphaltic concrete on crusher run surfacing 2.1 mi. Contra Costa Co. C. H. Purcell, state hy. engr.

Bids Asked October 15

California—State Div. Hys., State Bldg., Los Angeles, grading, plant mix surfacing 2 mi. Redondo Blvd. between El Segundo Blvd. and 116 St. and between Century Blvd. and Manchester Ave.; asphalt widening 0.8 mi. between 2 mi. north Traffic Circle and Lakewood Village, both Los Angeles Co. C. H. Purcell, state hy. engr.

Nevada—Dpt. Hys., Carson City, constructing 5.61 mi. hy. sys. from jct. with U.S. Route 93 to Three Kids mine, Clark Co. R. A. Allen, state hy. engr.

Bids Asked October 16

N. J., Waldwick—Boro, 6,800 sq. yd. bituminous penetration macadam surfacing W. Prospect St. F. M. Evans, Municipal Bldg., Glen Rock, engr.

Bids Asked

Iowa — State Hy. Comn., Ames, rejected bids Sept. 8, imprv. 1.54 mi. Woodbury Co. CD 9/15—ENR 9/17, under LB.

Kentucky — Dpt. Hys., Frankfort, rejected bids Sept. 16, imprv. 2.011 mi. road Graves Co. CD 8/28—ENR 9/3.

†Oklahoma—U. S. Eng., 416 Wright Bldg., Tulsa, construction, paving access roads. $250,000. Plans deposit $50.

STREETS, etc. (Bids Asked, Cont'd.)

Tex., Corpus Christi—Nueces Co., constructing connecting road of Bluntzer Sandia Precinct 3. Over $25,000. L. Young, co. engr.

Washintgon—B. Bantz, dir. Hys., Olympia, received no bids Sept. 22, imprv. roads Pacific and Lewis Counties. CD 9/9.

LOW BIDDERS

California — State Div. Hys., Sacramento, Sept. 22, imprv. 0.5 mi. Napa Co., from Louis Biasetti & Son, 40 W. Clay St., Stockton, **$134,741**; 0.8 mi. Alameda Co., from Lee J. Immel, Box 65, Sta. A, Berkeley, **$154,883**. CD 9/4—ENR 9/10.

California—State Div. Hys., State Bldg., Los Angeles, Sept. 24, imprv. 1.3 mi. Orange Co., from Griffith Co., 502 Los Angeles Ry. Bldg., Los Angeles. **$69,401**. CD 9/4—ENR 9/10.

Calif., Los Angeles—Bd. P. Wks., Sept. 23, imprv. Alameda St., Lomita Blvd. to N St., from R. M. Price, 2764 Saturn Ave., Huntington Park, **$185,287**. Est. $113,000. L. Aldrich, City Hall, engr.

D. C., Wash. — District Comrs., District Bldg., Sept. 24, repairing 1,000 cu. yd. concrete roadway and alley pavements, 8,000 sq. yd. concrete sidewalks, from E. B. Donaldson & Sons, 12 and Brentwood Rd. N.E., **$53,334**. CD 9/22

Georgia—State Hy. Dpt., Atlanta, Sept. 18, grading, paving, widening, resurfacing 2.143 mi. Columbus-Cusseta Rd., Muscogee Co., from W. L. Cobb, Decatur, **$343,940**.

★**Illinois** — Dpt. P. Wks. & Bldgs., Div. Hys., Springfield, Sept. 25, imprv. SBI 148, 149, Dist. 9, Patching 9, Franklin and Williamson Counties, from J. P. Constr. Co., Chicago Heights, **$59,615** *** SBI Route 98, Fulton Co., from R. A. Cullinan & Son, Tremont, **$38,502*****SBI Route 146, Jackson Co., and Combination 1, Sects. 130R, 131R and 6-G-2, SBI Route 150 and FAS Route 195, Jackson Co., from Fleming & Kilgo Constr. Co., Alton, **$232,797** and **$117,381** respectively ***Sect. 1G, Lake Co., from Arrow Petroleum Co., Forest Park, **$28,820*****FA Route 130, Lake Co., from Eric Bolander Constr. Co., Libertyville, **$58,072*****FA Route 5 and SBI Route 4, Logan and Sangamon Counties, from Hurden Constr. Co., Reisch Bldg., Springfield, **$230,717*****SBI Route 147, Pulaski Co., from Madison Constr. Co., Edwardsville, **$418,581*****FA Route 5, Sect. 25R, Sangamon and Logan Counties, from I. D. Lain Co., Sangamon Ave., Springfield, **$899,946**. CD 8/21.

Maryland—State Roads Comn., Baltimore, Sept. 22, imprv., Contr. Ce 253-1-266, Cecil Co., from Waller Paving Co., Salisbury, Items **(9) $49,395 (9a) $49,957**. CD 9/16.

Michigan—State Hy. Dpt., Lansing, concrete paving 0.7 mi. Eccles Rd. from Plymouth to Schoolcraft Rds., for Wayne County Rd. Comn., and State Hy. Dpt., Lansing, from Edward H. Porath, 702 Transportation Bldg., Detroit, **$74,355**.

Missouri—State Hy. Comn., Jefferson City, Sept. 19, imprv. 3.124 mi. Jackson Co., from J. A. Tobin Constr. Co., 3700 Rainbow St., Kansas City, Kan., **$212,165**. CD 9/15.

Nevada—State Hy. Dpt., Carson City, Sept. 18, highway construction near Delacmar, Lincoln Co., from Dodge Constr. Inc., N. Maine St., Fallon, **$207,821**. R. A. Allen, state hy. engr.

†**Oklahoma**—U. S. Eng., 416 Wright Bldg., Tulsa, asphalt paving access roads, from S. E. Evans Constr. Co. and Layman & Co., Braggs, **$100,000-$500,000**.

Texas—State Hy. Comn., Austin, Sept. 22, imprv. 1.651 mi. N.R.-D.A. NR-7-A, Dallas Co., from Vilbig Constr. Co., 817 Bourbon St., Dallas, **$201,440**. Est. $200,000.

Virginia — Dpt. Hys., Richmond, Sept. 24, imprv. 5.1 mi. Route 168, Warwick Co., from Bero Eng. & Constr. Corp., P. O. Box 68, Blackstone, **$476,088**. CD 9/17.

†**Virginia**—Pub. Roads Admin., 515 14 St., N.W., Wash., D. C., Sept. 21, DA-WR-8 Paving 27, from Arlington Asphalt Co., Arlington, Va., **$75,966**. Bids 9/15 rejected. CD 9/17—ENR 9/24, under LB.

Wash., Seattle—Bd. P. Wks., Sept. 17, removing street railway tracks and resurfacing Fremont Ave. and N. 34 St., from Argentieri & Colarossi, 1819 Weller St., **$27,000**. Est. $29,983. CD 9/9.

CONTRACTS AWARDED

★†**Alabama**—U. S. Eng., 494 Spring St., Atlanta, Ga., clearing, grubbing, grading, drainage, Talladega Co., to Wright Contg. Co., Columbus, Ga., **$500,000-$1,000,000**.

Arkansas—State Hy. Dpt., Little Rock, 5 roadway structures, imprv. 0.384 mi. at Mena, to Pioneer Constr. Co., Malvern, **$45,512**. Bids 9/17. CD 9/10, under Bridges.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, hardstanding paving storage area, Alameda Co., to Lowrie Paving Co., Inc., 1540 16 St., San Francisco, **$100,000-$500,000**.

†**California**—U. S. Eng., 1209 8 St., Sacramento, roadway, paving, fence, sanitary sewer, storm drain, electric distr., water distr. and supply sys., warehouses, and sewage disposal, San Joaquin Co., to Wagner, Parker, Eaton & Smith, San Francisco, **$100,000-$500,000**.

†**California**—U. S. Eng., 1209 8 St., Sacramento, paving parking area, Sacramento Co., to A. Teichert & Son, Inc., Box 1113, Sacramento, under **$50,000**.

†**Florida**—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, paving roads in warehouse area and aprons at hangar, Orange Co., to W. H. Armston, Inc., Dunedin, under **$50,000**.

†**Florida**—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, paving, Inv. NEGJAX-43-129, Pinellas Co., to Ford Plumbing Co., 3807 Florida Ave., Tampa, less than **$500,000**.

†**Florida**—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, roads, Sarasota Co., to Geo. A. Betz, Inc., Sarasota, under **$50,000**.

†**Georgia**—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., grading, paving, drainage streets for addnl. housing, Chattahoochee Co., to W. L. Cobb Constr. Co., Bell Bldg., Montgomery, Ala., under **$50,000**.

†**Georgia**—U. S. Eng., Post Office Bldg., Savannah, grading, draining, Screven Co., to Lokey & Anderson, Thomson, **$100,000-$500,000**.

★†**Illinois** — U. S. Eng., 520 Merchandise Mart, Chicago, roads, drainage, Fulton Co., to S. J. Groves & Sons, 509 Wesley Temple Bldg., Minneapolis, Minn., **$1,000,000-$5,000,000**.

†**Illinois**—U. S. Eng., Clock Tower Bldg., Rock Island, concrete road, Carroll Co., to McCarthy Imprvt. Co., 601 Kahl Bldg., Davenport, Ia., **$50,000-$100,000**.

†**Illinois**—U. S. Eng., U. S. Courthouse & Customhouse, St. Louis, Mo., surface course, Macon Co., to Hurden Constr. Co., Reisch Bldg., Springfield, **$100,000-$500,000**.

†**Illinois**—U. S. Eng., Federal Bldg., Louisville, Ky., extend roadways, drainage, Champaign Co., to Frank A. Somers Co., Inc., Urbana, under **$50,000**.

†**Indiana**—U. S. Eng., 612 Federal Bldg., Louisville, Ky., roads, parking areas, area grading, Bartholomew Co., to Rockroad Constr. Co., I. D. Lain Co., Waukegan Constr. Co., and Swords McDougal Co., 5915 N. Rogers St., Chicago, Ill., under **$50,000**; sanitary sewer exten., to Michael Pontarelli & Sons, 4248 N. Kilpatrick St., Chicago, Ill., under **$50,000**.

Iowa—State Hy. Comn., Ames, imprv. U.S. 67, Scott Co., to Central Eng. Co., 2531 Rockingham St., Davenport, **$78,735**. Bids 9/22, awarded 9/23. CD 9/15—ENR 9/17.

†**Kentucky**—U. S. Eng., Post Office, Cincinnati, O., grading, roadways, utilities, Boyle Co., to W. L. Harper Co. & V. P. Serodino Co., 914 Main St., Cincinnati, O., **$100,000-$500,000**.

†**Michigan**—U. S. Eng., Union Guardian Bldg., Detroit, roads, walks, drains, Wayne Co., to Collad Service Corp., 14236 Birwood St., Detroit, Mich., under **$50,000**.

†**Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, roads, walks, parking area, drains, to Sachs & Lodewyk, 1113 Lafayette Bldg., Detroit, under **$50,000**.

Minnesota—State Hy. Dpt., St. Paul, imprv. 1.2 mi. S.P. 2754-03 (TH 8-114) and S.P. 2712-04 (TH 8-63), to Thornton Bros. Co., 1343 Dayton Ave., St. Paul, **$111,927**. Bids 8/28. CD 9/9—ENR 9/17, under LB.

★†**Nebraska**—U. S. Eng., 10 E. 17 St., Kansas City, Mo., concrete pavement, Redwillow Co., to Gene Hurley Constr. Co., 1001 Oakdale Ave., St. Paul, Minn., **$1,000,000-$5,000,000**.

★†**Nebraska**—U. S. Eng., 10 E. 17 St., Kansas City, Mo., concrete paving, incidental work, Thayer Co., to Stephens-Brown Co. BMA Bldg., and Poole Contg. Co., Finance Bldg., Kansas City, Mo., **$1,000,000-$5,000,000**; roads, drainage and fencing Thayer Co., to G. H. Lowe, 417 1 Ave. S.E., Cedar Rapids, Ia. **$100,000-$500,000**.

†**New Mexico**—U. S. Eng., Albuquerque, application road oil for dust palliative, Chaves Co., to N. B. Hoffman, Mid-Continent Bldg., Fort Worth, Tex., under **$50,000**.

Ohio—State Hy. Dpt., Columbus, imprv. 3.353 mi. Logan Co. and 10.658 mi. Coshocton and Muskingum Counties, to Ohio Road Imprvt. Co., 341 Chamber of Commerce Bldg., Columbus, **$84,938** and **$110,862** respectively, est. $85,800 and $111,600 respectively***4.694 mi. Guersey Co., to Muskingum Valley Asphalt & Supply Co., 226 Masonic Bldg., Zanesville, **$92,669**, est. $92,700*** 8.182 mi. Hardin and Hancock Counties, to Robinson-Burns & Cooper Co., 337 S. High St., Columbus, **$44,389** est. $44,390***1.816 mi. Henry Co., to S. E. Johnson Co., 218 Terminal Bldg., Toledo, **$68,900** est. $69,100. Grand total $401,758. Received no bids Sept. 22. Hoicking, Portage, Licking and Mahoning Counties. CD 9/14—ENR 9/17.

Ohio — State Hy. Dpt., Columbus, imprv. 0.732 mi. Franklin Co., to B. F. Patterson, 4476 N. High St., Columbus, **$40,999**, est. $41,100***6.981 mi. Clark Co., to Boyd & Cook Co., 801 Gas & Electric Bldg., Dayton, **$62,704**, est. $63,970***0.183 mi. Lawrence Co., to R. L. Wheelock, Christiansburg, **$113,654**, est. $115,000***28.62 mi. Mahoning, Stark, Summit and Trumbull Counties, to Northeastern Road Co., Willoughby, **$58,782**, est. $59,479. Grand total $276,239. 9 bids Sept. 15, imprv. 9.984 mi. [illegible] ing and Columbiana Counties, [illegible] rain Co., 3.666 mi. Greene Co. [illegible] 9/10.

†**Oklahoma**—U. S. Eng., 416 W [illegible] Tulsa, grading, constructing [illegible] storm sewers, Muskogee Co., [illegible] Sallisaw, **$50,000-$100,000**.

†**Oregon**—U. S. Eng., Pittock [illegible] land, roads and railroads, Uma [illegible] Jacobsen-Jensen Co., 517 N.E. [illegible] Portland, **$100,000-$500,000**.

Pa., Pittsburgh—Dpt. P. Wks. Bldg., imprv. Highland Village P[illegible] bine St., Simona Dr. and Farmin[illegible] Allegheny Asphalt & Paving Co. [illegible] of Allies, **$33,353**. Bids 9/14. CD

Pa., Pittsburgh—Comrs. Allegheny [illegible] widening and reconstructing C[illegible] Bridgeville Rd., to Ben Constr. Co. [illegible] grove St. **$26,000**. Bids 9/15. CD 9/10.

†**South Carolina** — U. S. Eng., G[illegible] acess road, to E. D. Sloan, Greenv[illegible]

†**Texas**—U. S. Eng., Albuquerque [illegible] Asphalt seal stripping, El Paso Co., [illegible] Millan, El Paso, under **$50,000**.

†**Texas**—U. S. Eng., Denison, [illegible] roads, grading, Bowie Co., to W. [illegible] ford, Dallas, Tex., **$100,000-$500,000**.

†**Texas**—U. S. Eng., Fort Sam [illegible] streets and paving and hardstand[illegible] Spec. 42-266, to J. Skelton, 225 T[illegible] St., San Antonio, **$50,000-$100,000**. [illegible] CD 8/7.

†**Texas**—U. S. Eng., Fort Sam [illegible] roads, concrete sidewalks, Spec. 42[illegible] Co., to Southern States Constr. Co. [illegible] Jacinto Bank Bldg., Houston, under $50,000. CD 8/17.

†**Texas**—U. S. Eng., San Antonio, [illegible] ing roads, walks and fence, Cameron Co., to J. O. Mack, Jr., Gunter Hotel, San Antonio, **$50,000-$100,000**.

†**Texas**—U. S. Eng., San Antonio, [illegible] structing streets and parking areas, Refugio, to Holland Page, Georgetown Rd., Austin, **$50,000-$100,000**.

Tex., Houston—N. Pickett, mayor, [illegible] parking area and asphalt paving, to [illegible] Patterson, Washington Ave., approx. $25,000. CD 9/11—ENR 9/17.

Utah — State Rd. Comn., Salt Lake City, imprv. 2.544 mi. Weber Co., to W. W. Clyde & Co., Springville, **$258,932**. Est. $2 0,000. Bids 9/16. CD 9/9.

Wyoming—State Hy. Comn., F. Kelso, [illegible] Cheyenne, grading, draining, 1 treated timber bridge ,base course surfacing oil treating 9.267 mi. Clearmont-Ucross Rd., Sheridan Co., to E. E. Peterson, Casper, **$38,506**. Bids 9/24, awarded 9/24. J. E. Groham, Sheridan, engr.

Nova Scotia—Dpt. National Defense for Sea, Ottawa, Ont., exten., imprv. road between Westmount and Naval Base at Sydney, to Provincial Dpt. Hys. & Pub. Wks., Halifax, **$86,000**.

Ont., Leaside (Toronto)—Town, 211 Glenborough Dr., repairing concrete, asphalt pavements Wickstead Rd. and McRae Dr., to Rayner Constr. Co., Ltd., 29 Commercial St., about **$44,000**.

Que., Quebec City—F. X. Chouinard, city clk., paving St. Sacrament Playground, Aqueduct Hill and Blvd. de L'Entente, day labor, **$66,000** voted. E. Hamel, City Hall, engr.

Que., Warwick—Dpt. Roads, Quebec, paving 9 mi. road between Warwick and Kingsey Falls, Hy. 5, to Modern Paving Ltd., 75 Richmond St., Montreal, about **$68,000**.

EARTHWORK, WATERWAYS

PROPOSED WORK

†**California**—Bureau Reclamation, Old Postoffice Bldg., Sacramento, 6 mi. section Friant-Kern Canal, Central Valley Project.

★†**Florida** and **Texas**—U. S. Eng., Courthouse & Postoffice, Jacksonville, Fla., imprv. Intra-Coastal Canal between Carrabelle, Fla., and Corpus Christie, Tex. $6,500,000.

Ia., Clarion—Iowa State Conservation Comn., Clarion, dam. $40,000.

Louisiana — Plaquemine Drainage Dist., Gretna, repairing drainage canals, ditches, Jefferson Parish.

La., Barataria — Stevens & Co., Whitney Bldg., New Orleans, dredging in Lake Salvador.

La., Chef Menteur—M. T. Burton, Sulphur, dredging channel 8 ft. below mean low water level over bottom width of 120 ft., Orleans Parish.

La., Lake Charles—Mathieson Alkali Wks., Inc., Lake Charles, dredging canal, approx. 5 ft. deep with bottom width of 50 ft., installing flood gate to connect with levee etc.

La., New Orleans—Stevens & Co., Whitney Bldg., dredging.

Mo., Jefferson City—Flood control along Weirs Creek, Black & Veatch, 4706 Bway., Kansas City, Mo., engrs.

Neb., Lincoln—Lancaster County Sanitary Dist. 1, Lincoln, surveys nearly completed

EARTHWORKS, etc. (Proposed Work, Cont'd)

deepening, widening Salt Creek. $15,000. CD 8/19—ENR 5/21.

Pennsylvania—Dpt. Forests & Waters, G. A. Stewart, secy., Harrisburg, establishing channel lines along Lehigh River, $100,000; repairing dam over Lehigh River at Easton, $35,000. C. E. Ryder, ch. engr.

★**Pennsylvania**—Dpt. Forest & Waters, G. A. Stewart, secy., Harrisburg, restoration damaged stream channels in McKean, Potter, Tioga, Cameron and Clinton Counties. $100,000. C. E. Ryder, ch. engr.

South Dakota—U. S. Eng., 1709 Jackson St., Omaha, Neb., surveys flood control work. $10,000.

Tex., Fort Worth—Tarrant County Water Control & Imprvt. Dist. 3, pump unit for flood control work, $75,000 bonds voted; flood control work on Marine Creek and Trinity River, $275,000 bonds voted. J. J. Rady, 811 Insurance Bldg., engr.

Tex., Pasadena—Harris Co. Water Control & Imprvt. Dist. 13, Pasadena, fresh water supply project. Garrett Engineering Co., 2504 Audubon St., Houston, engrs. (representing district only at present).

†West Virginia—U. S. Eng., Chesapeake & Ohio Bldg., Huntington, imprv. Monongahela River, 23 mi. between Morgantown and Fairmont.

W. Va., New Martinsburg—Pittsburgh Plate Glass Co., 632 Duquesne Way, Pittsburgh, Pa., dredging 165,000 cu.yd. harbor at new plant, Natrium, near here. Over $18,000.

Wis., Bayfield—F. Bigelow, mayor, reconstructing after flood from Lake Superior, revetment, erosion and flood control, repair streets and sewerage system, etc. $150,000.

BIDS ASKED

Bids Asked October 9

†Arkansas—U. S. Eng., P. O. Box 60, Vicksburg, Miss., 132,700 cu. yd. earthwork on east bank Red River.

N. Y., Manhasset—Bd. Supervs., Old Court House Bldg., Mineola, drainage sys., Sect. 3. $140,000.

Bids Asked

†Maine—U. S. Eng., 31 St. James Ave., Boston, Mass., (from selected bidders) earthwork. Over $25,000.

LOW BIDDERS

†Ariz., Parker—U. S. Indian Irrigation Serv., 751 S. Figueroa St., Los Angeles, Calif., Sept. 21, drainage sys. for Colorado River War Relocation Project, No. CR-43-1 (La.), from J.M.S. Co., P. O. Box 596, Concord, Calif., $275,900. CD 9/9.

CONTRACTS AWARDED

†Arkansas—U. S. Eng., P. O. Box 97, Memphis, Tenn., levee constr., Inv. 1092-43-21F, to H. N. Rodgers & Son Co., 62 S. Front St., Memphis, Tenn., **$100,000-$500,000.**

Conn., Bridgeport — Heppenstall Co., 95 Howard Ave., bulkhead, creosoted piles, Howard Ave., to Hewlett Constr. Co., 1285 Iranistan Ave. Est. **$25,000.**

†Florida—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, excavating ditch, Palm Beach Co., to Mackle-Leach Constr. Co., Key West, under **$50,000.**

†Illinois—U. S. Eng., Courthouse & Customhouse, St. Louis, Mo., dredging, to Grant Contg. Co., c/o American Aggregate Co., Greenville, O. Est. under **$50,000.**

†Louisiana—U. S. Eng., foot of Prytania St., New Orleans, levee work, No. 43-92, to H. B. Blanks Co., P. O. Box 291, McGehee, Ark.

†Massachusetts—U. S. Eng., 31 St. James Ave., Boston, dredging, Barnstable Co., to Trimount Dredging Corp., 10 State St., Boston, under **$50,000.**

†New York—U. S. Eng., 120 Wall St., New York, drainage ditches, to Certified Constr. Corp., 37 Roe St., West New Brighton, under **$50,000.**

†Washington — U. S. Eng., Pittock Blk., Portland, Ore., drainage sys., grading, misc. work, to Leonard & Slate, Multnomah, Ore., **$200,000.**

Ont., Port Maitland—Dpt. P. Wks., Ottawa, harbor dredging, to Consolidated Dredging, Ltd., 54 Chestnut Park, Toronto, about $50,000. Est. $40,000. CD 7/2.

UNCLASSIFIED

PROPOSED WORK

★**†Arkansas**—FACILITIES—U. S. Eng., Gay Bldg., Little Rock, relocation facilities, $200,000; addnl. bldgs., roads, streets, sewers, water lines, electric lighting, etc., $2,500,000.

Calif., Los Angeles—OIL TANK—Southern California Gas Co., 810 S. Flower St., rein.-con. oil storage tank. $30,000. F. J. Alexander, 810 S. Flower St., engr.

★**†Ia., Burlington** — AIRPORT IMPROVEMENTS—M. A. Conrad, mayor, imprv. airport. $650,000. CAA. CD 8/18—ENR 8/20.

★**†Kansas**—IMPROVEMENTS—U. S. Eng., Albuquerque, N. M., imprvs., bldgs., facilities, $4,000,000.

†Kansas—IMPROVEMENTS—U. S. Eng., 601 Davidson Bldg., Kansas City, Mo., imprvs. Over $2,000,000.

Louisiana—CABLES—Bass Harlass Lumber Co., Inc., Lake Charles, temporary cables, etc., Vermillion Parish.

†Louisiana—GASOLINE FUELING SYSTEM—U. S. Eng., foot of Prytania St., New Orleans, gasoline fueling sys., Inv. 43-114.

Louisiana—OIL PIPELINE—Shell Pipe Line Corp., Shell Bldg., Houston, Tex., oil pipeline, St. Landry Parish.

Louisiana—SUCTION PIPE—San Francisco Planting & Mfg. Co., Ltd., Lions, exten. 8 in. suction pipe, St. Johns Parish.

Louisiana—WHARF — Southport Petroleum Co., Whitney Bldg., New Orleans, reconstructing 20x40 ft. timber wharf, timber pile fdn., Jefferson Parish.

La., Westwego — TIMBER and TIMBER PILE BENTS—Exten. timber and timber pile bents, Jefferson Parish.

★**Minnesota**—IMPROVEMENTS—The Minneapolis & St. Louis R. R., C. S. Weatherill, ch. engr., Northwestern Bldg., Minneapolis, imprvs., incl. shops, freight storage and handling space in Minneapolis, approx. $1,000,000; also imprvs. along line about $800,000.

Minnesota—RURAL ELECTRIC SYSTEM—Mille Lacs Region Cooperative Power & Light Assn., Aitkin, rehabilitation and to connect members along distr. lines of cooperative. $39,000 REA allot.

†Nebraska—HANGARS—U. S. Eng., 1709 Jackson St., Omaha, engineer-architect servlces by John Latenser & Sons, Inc., 1307 Farnam St., Omaha, hangars, Douglas Co.

Neb., York—AIRPORT—Flossie Hassler, city clk., $40,000 bond election Oct. 20, airport imprvs., bldgs., runway extens.

†Nev., Winnemucca—AIRPORT—Civil Aeronautics Admin., 1500 4 St., Santa Monica, Calif., grading, paving, draining, municipal airport, Project 63-15. Over $25,000.

†New Mexico — IMPROVEMENTS — U. S. Eng., Albuquerque, engineer-architect servlces by Haynes & Strange, Parkhill, Voelcker & Dixon, Lubbock, Tex., airfield facilities, roads, drainage, bldgs., utilities and fueling sys., De Baca Co.

†New Mexico — LANDING FIELDS — U. S. Eng., Albuquerque, engineer-architect services by Wilson & Co., Architect-Engineers, Albuquerque, auxiliary landing fields, Lea Co.

Oklahoma — GASOLINE PIPELINE — Tidewater Associated, Drumright, Deep Rock Oil Corp., Cushing, Refining & Gasoline Co., Cushing, and Johnson Oil & Refining Co., Cleveland, 60 mi. 6 in. gasoline pipeline radiating from refineries of owners to tie into Great Lake Pipe Line Co., mains at Barnsdall. $200,000.

†Oklahoma—IMPROVEMENTS—U. S. Eng., 416 Wright Bldg., Tulsa, imprvs. Under $50,000.

†Oklahoma—IMPROVEMENTS—U. S. Eng., 416 Wright Bldg., Tulsa, imprvs., addnl. bldgs., roads, water, sewer, gas extens. $225,000.

★**†Oklahoma** — IMPROVEMENTS — U. S. Eng., 416 Wright Bldg., Tulsa, imprvs. Under $3,000,000.

†South Carolina—BOMBING RANGE—U. S. Eng., Fort Jackson, bombing range, Richland Co.

†Texas—FACILITIES—U. S. Eng., 25 St. and Avenue F, Galveston, facilities, $200,000.

†Texas—GRADING, etc.—P. S. Shroy, engr., Heep Bldg., Corpus Christi, bids soon, grading, drainage, clearing site, for Industrial Company. Federally financed.

★**Texas**—PIPELINE CARRIER—Sinclair Refining Co., Gulf Bldg., Houston, 160 mi. 8 in. steel welded joint pipe line carrier between Robstown and Damon Mound, Brazoria Co. $600,000.

Texas — PIPELINE — Sinclair Refining Co., Fair Bldg., Fort Worth, removal and relaying 42 mi. 8 in. steel pipeline carrier from Gray Co. to point north on Texas-Oklahoma border, near Pampa. $80,000 or more.

★**†Tex., Abilene**—AIR FORCE INSTALLATION—U. S. Eng., San Antonio, air force installation. Over $3,000,000.

†Washington—CONSTRUCTION—U. S. Eng., 810 3 Ave., Seattle, miscellaneous construction. W. S. McCrea, Jr., Perkins Bldg., Tacoma, engr.

†Washington—FIRE ALARM SYSTEM—U. S. Eng., 800 3 Ave., Seattle, engineer-architect services by Henry Bittman & Associates, Securities Bldg., Seattle, fire alarm sys., King Co.

†Washington—GASOLINE STORAGE—U. S. Eng., 800 3 Ave., Seattle, engineer-architect services, by G. W. Stoddard, Griffin & Lowe & Associates, Lloyd Bldg., Seattle, gasoline storage facilities, Clallam, Kitsap, Mason, Seattle, Skagit, Snohomish, Thurston, and Whatcom Counties.

Wis., La Crosse—AIRPORT—J. H. Barth, city engr., approved $150,000 bond issue, airport. $450,000. CD 7/22—ENR 7/30.

Wis., Grantsburg—AIRPORT—Burnett Co., airport, near jct. Hys. 35 and 70, between Siren and Webster. over $25,000. Foth & Boyd, Columbus Bldg., Green Bay, engrs.

Wis., Mosel (mail Sheboygan)—City of Sheboygan, J. E. Leberman, clk., airport, near Hy. 32. Over $25,000.

†Pacific Northwest—ELECTRIC DISTRIBUTION SYSTEM—U. S. Eng., 810 3 Ave., Seattle, Wash., electric distr. sys. and street lighting.

†Pacific Northwest—UTILITY SYSTEM, etc. —U. S. Eng., 810 3 Ave., Seattle, Wash., installing utility and steam heating sys.

★**N. B., Sackville**—BROADCASTING STATION—Canadian Broadcasting Comn., Victoria Bldg., Ottawa, Ont., bids soon high power short wave broadcasting station. $700,000.

★**P. E. I., Southport**—DRY DOCK—Bruce Stewart Ltd., 7 Great George St., Charlottetown, dry dock. $500,000.

BIDS ASKED

Bids Asked October 8

Ill., Chicago—STATION EQUIPMENT—City at office P. Harrington, comr. Subways & Superhighways, 20 N. Wacker Dr., station equip., Contr. T-5, Orders 2, Contr. T-5, Order 3 and Contr. T-5 Orders 2 and 3 combined.

Bids Asked

California—SANDBAG PLACEMENT—H. J. Kaiser Co., 1522 Latham Sq. Bldg., Oakland, 45,600 sandbags in place around bldgs.

†Texas—UTILITIES—U. S. Eng., Fort Sam Houston, underground utilities, water distr. sys., gas distr. sys., sanitary sewerage sys., Spec. 45-357. Plans deposit $25.

LOW BIDDERS

★**†Arizona**—IMPROVEMENTS—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., Sept. 18, imprvs., No. 256, Schedule A, from Kolob Constr. Co., Phoenix, Schedules B, C and D, from Travis Constr. Co., Box 842, Blythe, Calif., under **$1,000,000.**

★**†California**—IMPROVEMENTS—U. S. Eng., 751 S. Figueroa St., Los Angeles, Sept. 22, imprvs., No. 263, from Rhoades Bros. & Shofner, 3869 Medford St., Los Angeles, under **$1,000,000.**

†California—IMPROVEMENTS—U. S. Eng., 751 S. Figueroa St., Los Angeles, Sept. 21, imprvs., No. 235, from Johnson, Inc., Box 781, San Bernardino, Minnis & Moody and Vista Constr. Co., 1116 N. Mansfield Ave., Los Angeles, less than **$100,000.**

†Nevada — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., Sept. 17, electrical distr. sys., No. 255, from R. R. Jones Electric Co., 925 Meridian Ave., S. Pasadena, Calif., under **$50,000.**

†Texas — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., Fort Sam Houston, Sept. 21, electrical distr. sys., Spec. 42-409 (T2-19), from Embry Electric Co., Brady. CD 9/16.

CONTRACTS AWARDED

†Alabama—FENCING—U. S. Eng., 306 U. S. Courthouse, Nashville, Tenn., fencing, Lawrence Co., to Chain Link Fence Corp., 1629 W. 31 St., Chicago, Ill., under **$50,000.**

†Alabama—FENCING—U. S. Eng., U. S. Court House & Customhouse, Mobile, fencing, Dale Co., to Henderson-Black & Greene Mill Co., Troy, under **$50,000.**

†Alabama—IMPROVEMENTS—U. S. Eng., 494 Spring St., Atlanta, Ga., imprvs., to Christian & Bell, 101 Marietta St. Bldg., Atlanta, Ga.

†Arizona—AIR CONDITIONING, etc.—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., air conditioning, heating and dust-proofing, Maricopa Co., to W. C. Bradshaw, Fresno, under **$50,000.**

★**†Arizona**—AIRFIELD—U. S. Eng., Albuquerque, N. M., airfield facilities, Cochise Co., to Arizona Constructors, Home Builders Bldg., Phoenix, **$1,000,000-$5,000,000.**

★**†Arizona**—CONSTRUCTION—U. S. Eng., Albuquerque, N. M., miscellaneous construction, Cochise Co., to A. Teichert & Son, Inc., Davis Hy., and J. C. Gist, 1020-46 St., Sacramento, Calif., **$1,000,000-$5,000,000.**

†Arizona—HANGARS—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., hangars, Maricopa Co., to J. K. Thomas and T. A. Beyer Corp., Chamber of Commerce Bldg., Los Angeles, Calif., **$100,000-$500,000.**

†Arizona—RAILROADS—U. S. Eng., Albuquerque, N. M., railroads, Coconino Co., to Arizona Constructors, Home Builders Bldg., Phoenix, **$50,000-$100,000.**

†Arkansas — FENCING — U. S. Eng., Gay Bldg., Little Rock, fencing, to Nelson Tie Co., Humble, Tex. Awarded 9/10.

†Arkansas—IMPROVEMENTS—U. S. Eng., 300 Bway., Little Rock, imprvs., Buchanan Co., to L. F. Harper, St. Joseph, Mo., est. under **$500,000.**

†Arkansas—IMPROVEMENTS—U. S. Eng., Gay Bldg., Little Rock, imprvs., grading, to Crowley, Screetan & Roberts, Hazen. **$100,000-$500,000.** Awarded 9/10.

UNCLASSIFIED (Contracts Awarded, Cont'd.)

†**Arkansas**—IMPROVEMENTS—U. S. Eng., P. O. Box 97, Memphis, Tenn., imprvs., to Crittenden Constr. Co., West Memphis. Est. under **$50,000.**

†**Arkansas** — RUNWAYS, etc. — U. S. Eng., Post Office, Vicksburg, Miss., exten. runways, addnl. taxiways, etc., Hinds Co., to Clark Bros. Co., Jackson, Miss., **$100,000-$500,000.**

†**California**—CONSTRUCTION—U. S. Eng., 75 S. Figueroa St., Los Angeles, miscellaneous construction, Los Angeles Co., to Fritz and Robert Ziebarth, 820 W. Esther St., Long Beach, **$50,000-$100,000.**

†**California**—CONSTRUCTION—U. S. Eng., 751 S. Figueroa St., Los Angeles, miscellaneous construction, San Diego Co., to R. D. Russell, Oakland, **$100,000-$500,000.**

★†**California**—CONSTRUCTION—U. S. Eng., 1209 8th St., Sacramento, Calif., miscellaneous construction, Kings Co., to Owl Truck & Materials Co., Compton, **$500,000-$1,000,000.**

†**California**—CONSTRUCTION—U. S. Eng., 1209 8 St., Sacramento, construction, Sacramento Co., to Lawrence Const. Co., 3511 E. Curtis Park Dr., Sacramento, under **$50,000.**

†**California** — CONTROL TOWERS — U. S. Eng., 751 S. Figueroa St., Los Angeles, control towers, San Bernardino Co., to Robt. H. Travers, Los Angeles, under **$50,000.**

†**California** — GASOLINE DISTRIBUTION SYSTEM, etc.—U. S. Eng., 74 New Montgomery St., San Francisco, addnl. gasoline distr. sys. and shelters, San Francisco Co., to Carrico & Gautier, 365 Ocean Ave., San Francisco, **$50,000-$100,000.**

†**California**—GASOLINE FUELING SYSTEM—U. S. Eng., 1209 8 St., Sacramento, gasoline fueling sys. addn., Fresno Co., to Aqua Systems, Inc., 701 E. 3 St., Los Angeles, under **$50,000.**

†**California**—GASOLINE FUELING SYSTEM—U. S. Eng., 1209 8 St., Sacramento, gasoline fueling sys. addn., Kings Co., to Markwart Co., Forum Bldg., Sacramento, under **$50,000.**

†**California**—GASOLINE FUELING SYSTEM—U. S. Eng., 1209 8 St., Sacramento, gasoline fueling sys. addn., Sacramento Co., to Markwart Co., Forum Bldg., Sacramento, under **$50,000.**

†**California**—HARDSTANDINGS, etc.—U. S. Eng., 751 S. Figueroa St., Los Angeles, hardstandings, taxiways, drainage facilities, Los Angeles Co., to R. W. Hampton, 4031 Goodwin Ave., Los Angeles, **$100,000-$500,000.**

California — IMPROVEMENTS — Industrial Company, imprvs., bldg., to A. J. Hopper, 243 Langston St., San Francisco. CD 9/9—ENR 9/17.

California — IMPROVEMENTS — Industrial Company, imprvs., to C. M. Teigland, 773 University Ave., Berkeley.

California — IMPROVEMENTS — Industrial Company, imprvs., bldg., to H. H. Larsen Co., 64 South Park, San Francisco. CD 9/15—ENR 9/17.

†**California** — LIGHTING SYSTEM — U. S. Eng., 751 S. Figueroa St., Los Angeles, lighting sys., to W. T. Drury, 615 19 St., Bakersfield, under **$100,000.** Bids 9/12, awarded 9/15.

†**California** — LIGHTING SYSTEM — U. S. Eng., 751 S. Figueroa St., Los Angeles, night lighting sys., Riverside Co., to W. T. Drury, 615 19 St., Bakersfield, **$50,000-$100,000.**

†**California** — PAINTING — U. S. Eng., 74 New Montgomery St., San Francisco, painting, San Francisco Co., to Foster & Kleiser Co., 1675 Eddy St., San Francisco, under **$50,000.**

†**California**—PIPELINE—U. S. Eng., 751 S. Figueroa St., Los Angeles, installing pipeline, Inyo Co., to C. J. Paradis, 2320 Ideil St., Los Angeles, under **$50,000.**

†**California**—RUNWAY EXTENSION—U. S. Eng., 74 New Montgomery St., San Francisco, runway exten., Marin Co., to Campbell, Nicholson & Moore, Oakland, under **$50,000.**

★†**California**—STEAM DISTRIBUTION SYSTEM, etc.—U. S. Eng., 751 S. Figueroa St., Los Angeles, steam distr. sys. and fuel oil storage facilities, San Bernardino Co., to K. Fraser, 1452 N. Lake Ave., Pasadena, **$500,000-$1,000,000.**

†**California**—UTILITIES, etc.—U. S. Eng., 751 S. Figueroa St., Los Angeles, utilities, San Diego Co., to W. H. Barber, 4875 La Mesa Blvd., La Mesa, under **$100,000.**

†**Colorado**—AIR CONDITIONING UNIT—U. S. Eng., c/o Postmaster, Denver, air conditioning unit, Pueblo Co., to V. V. McChesney, Denver, under **$50,000.**

†**Colorado**—AUTOMATIC SPRINKLER SYSTEM, etc.—U. S. Eng., c/o Postmaster, Denver, to Fire Protection Co., 6601 S. Narragansett St., Chicago, Ill., automatic sprinkler sys., under **$50,000*****to American District Telegraph Co., U. S. N. Bank Bldg., Denver, automatic fire alarm sys., under **$50,000*****to H. G. Worsham, 319 Lafayette St., Denver, miscellaneous construction, **$100,000-$500,000*****to Deakin Constr. Co., Denver, miscellaneous installations, under **$50,000;** clearing, under **$50,000;** miscellaneous construction, under **$50,000*****to Brown Constr. Co., Colorado Springs, constructing access road, under **$50,000*****to Wood, Morgan & Burnett Constr. Co., Durango, miscellaneous construction, under **$50,000,** all foregoing work in Eagle Co.

†**Colorado**—GRADING, etc.—U. S. Eng., c/o Postmaster, Denver, grading for supporting walls under concrete platforms, and grading, subgrade preparation, drainage structures for taxiways, both Denver Co., to Blanchard Bros., Cheyenne, Wyo., **$50,000-$100,000.**

†**Colorado**—SPUR TRACK—U. S. Eng., 1709 Jackson St., Omaha, Neb., spur track, El Paso Co., to Wilson McCarthy & Henry Swan, trustee of Denver & Rio Grande Western R. R. Co., Equitable Bldg., Denver, **$100,000-$500,000.**

†**Delaware**—AIR-WATER and ELECTRIC SERVICES—U. S. Eng., 6 and Walnut Sts., Phila., Pa., air- water and electric services to aprons, New Castle Co., to Wm. D. Shellady, Inc., 1015 Lane Ave., Wilmington, under **$50,000.**

†**Delaware**—CONSTRUCTION—U. S. Eng., 6 and Walnut Sts., Phila., Pa., miscellaneous construction, New Castle Co., to Chas. Leassle, Jr., Phila., Pa., under **$50,000.**

★†**Florida**—CLEARING, etc.—U. S. Eng., Court House, Jacksonville, clearing, grading, drainage, taxiways, hardstandings, runway exten., Duval Co., to Hooper Constr. Co., 1125 Kings Ave., Jacksonville, **$500,000-$1,000,000.**

†**Florida**—CLEARING, GRUBBING, etc.—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, clearing, grubbing, grading, draining, runways, taxiways and hardstands, Pasco Co., to John E. Ballenger Constr. Co., Lakeland, **$100,000-$500,000.**

†**Florida** — CONSTRUCTION — U. S. Eng., Courthouse & Postoffice, Jacksonville, construction work, Martin Co., to Maxwell Co., Inc., 251 N.W. 20 St., Miami, under **$100,000.** Awarded 9/13.

†**Florida** — CONSTRUCTION — U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, miscellaneous construction, Palm Beach Co., to Faulk & Coleman and J. D. Manley, Caesar Ave., Tampa, **$100,000-$500,000.**

†**Florida**—ELECTRIC DISTRIBUTION SYSTEM—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, electric distr. sys., Duval Co., to H. B. Garvin Electric Co., Orlando, under **$50,000.**

†**Florida**—ELECTRIC DISTRIBUTION SYSTEM—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, electrical distr. sys., Inv. NEG-JAX-43-202, to J. R. Hime Electric Co., 376 S. County Rd., Palm Beach, under **$50,000***water distr. sys., Inv. NEG-JAX-43-237, to W. T. Price Dredging Corp., 3200 S. W. 27 St., Miami, under **$150,000***ditch, Inv. NEH-BA-43-3, to Mackie-Leach Constr. Co., Key West, under **$50,000***causeway, etc., to Faulk & Coleman and Cone & Manly, Caesar Ave. and Cumberland St., Tampa, under **$500,000.** All work in Monroe Co.

★†**Florida**—ELECTRICAL DISTRIBUTION SYSTEM, etc.—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, electrical distr. sys., Inv. NEG-JAX-43-230, Duval Co., to H. B. Garvin Electric Co., Orlando, less than **$50,000;** taxiways, hardstands, Inv. NEG-JAX-43-185, Duval Co., to Hooper Constr. Co., 1125 Kings Ave., Jacksonville, less than $1,000,000.

†**Florida** — ELECTRICAL DISTRIBUTION SYSTEMS, etc.—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, electrical distr. sys., Inv. NEG-JAX-43-219, to Lipscomb Electric Co., Lakeland, less than **$50,000***electric distr. sys. Inv. NEG-JAX 43-154, to John H. Mann & Son, 1646 N. W. 28 St., Miami, less than **$50,000***intrusion detection sys., NEG-JAX 43-171, to Electronic Radio Alarm, Inc., Lincoln Liberty Bldg., Phila., Pa., less than **$50,000,** all foregoing work in Highlands Co.

†**Florida** — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., U. S. Courthouse & Customhouse, Jacksonville, electrical distr. sys., Palm Beach Co., to J. R. Hime Electric Co., 376 S. County Rd., Palm Beach, under **$50,000.**

†**Florida**—FACILITIES—U. S. Eng., Courthouse & Postoffice, Jacksonville, re-erection squad facilities, Palm Beach Co., Inv. Neg. WPB-43-5, to J. S. Wilson, Worth Ave., Palm Beach, under **$50,000.** Awarded 8/25.

†**Florida**—GAS FUELING SYSTEM, etc.—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, gas fueling and storage sys., Bradford Co., to C. J. Keys, St. Petersburg, under **$50,000.**

†**Florida**—GASOLINE FUELING SYSTEM—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., gasoline fueling sys., Bay Co., to Gulf City Constr. Co., Mobile, Ala., **$50,000-$100,000.**

†**Florida**—GASOLINE FUELING SYSTEM—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, A.C. gasoline fueling sys., Alachua Co., to Ivy H. Smith Co., 1525 San Marco Blvd., Jacksonville, under **$50,000.**

★†**Florida**—IMPROVEMENTS—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, imprvts., Inv. Neg-Jax-43-221, Hernando Co., to Ebersbach Constr. Co., Stoval Bldg., Tampa, less than **$1,000,000;** imprvs., Inv. Neg-Jax-43-221, Hernando Co., to B. B. McCormick & Sons, Inc., Graham Bldg., Jacksonville, less than **$500,000.**

†**Florida**—PAVING APRONS—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, paving aprons, Sarasota Co., to Ebersbach Constr. Co., Stovill Office Bldg., Tampa, **$100,000-$500,000.**

★†**Florida**—PIPELINE—Trans- line Co., Dallas, Tex., laying Pipe- line from Carrabelle to Jackson- north Florida, to Anderson, Okla., approx. **$2,900,000.** Defense will finance. Awarded 9/21.

†**Florida**—RAILROAD SPUR T... Eng., U. S. Courthouse & Post ...sonville, railroad spur track ... existing track, Jackson Co., to Constr. Co., Donalsonville, Ga., ... $50,000.

Florida—RUNWAYS, etc.—U. S. Courthouse & Post Office, Jacksonville, taxiways and installing ... Co., to J. L. Cone & J. D. Manley, and Cumberland St., Tampa. **$100,000-$500,000.**

†**Florida** — RUNWAYS, etc. — U. S. Courthouse & Post Office, Jacksonville, runways, taxiways and ... Co., to Rose & Horne, Ocala, **$100,000-$500,000.**

★†**Florida**—RUNWAYS, etc.—U. S. Court House, Jacksonville, aprons, taxiways, hardstands, Constr. Co., Orlando, under **$1,000,000;** runways, paving, aprons, hardstands, Contr. Co., Valdosta, Ga., under $500,000, both Taylor Co.

†**Florida**—SPUR TRACK—U. S. ... Court House, Jacksonville, spur track, ... to J. R. Powell, Fort Myers, ... under **$50,000.**

†**Florida**—STEAM DISTRIBUTION SYSTEM—U. S. Eng., U. S. Courthouse & ... Jacksonville, steam distr. sys., ... to John H. Mann & Son, 1646 N.W. ... St., Miami, under **$50,000.**

†**Florida**—TAXIWAYS, etc.—U. S. Eng., Court House, Jacksonville, clearing, grubbing, taxiways, hardstands, Palm Beach Co., to Cleary Bros. Constr. Co., West Palm Beach, under **$50,000.**

†**Georgia**—CLEARING, etc.—U. S. Eng., Post Office Bldg., Savannah, clearing, grubbing, grading, draining, paving, sodding, ... Co., to Claussen-Lawrence Constr. Co., Augusta, **$100,000-$500,000.**

†**Georgia**—DUST PALLIATIVE CONTROL—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, Fla., dust palliative control, Inv. Neg-V.A.-43-8, to J. B. Gibson Constr. Co., Donaldsonville, and Coffee Constr. Co., Eastman, under **$500,000.** Awarded 9/8.

†**Georgia**—FIRE ALARM SYSTEM, etc.—U. S. Eng., Post Office Bldg., Savannah, fire alarm and report sys., Chatham Co., to American District Telegraph Co., Savannah Fire Ins. Bldg., Savannah, under **$50,000.**

★†**Georgia**—PAVING RUNWAYS, etc.—U. S. Eng., Post Office Bldg., Savannah, paving runways, taxiways, and hardstandings, Screven Co., to Warren Bros. Roads Co., 38 Memorial Dr., Cambridge, Mass., **$500,000-$1,000,000.**

†**Georgia**—SITE GRADING, etc.—U. S. Eng., 494 Spring St. N.W., Atlanta, site grading and constructing roads and parking areas, Richmond Co., to R. A. Bowen and W. S. Rogers, Macon, **$50,000-$100,000.**

†**Georgia**—SPUR TRACK—U. S. Eng., U. S. Courthouse & Post Office Jacksonville, railroad spur track, Lowndes Co., to Georgia & Florida R.R., Augusta, under **$50,000.**

★†**Georgia**—WIRING SYSTEM—U. S. Eng., 494 Spring St. N.W., Atlanta, installing wiring sys., Cobb Co., to Miller Electric Co., 556 Riverside Ave., Jacksonville, Fla., **$500,000-$1,000,000.**

★†**Illinois**—AIRFIELD—U. S. Eng., Federal Bldg., Louisville, Ky., developing airfield for auxiliary field runways, Lawrence Co., to M. H. Parish, Allehgeny Asphalt & Paving Co., 411 Blvd. of Allies, Pittsburgh, Pa., **$500,000-$1,000,000.**

†**Illinois**—AIR CONDITIONING—U. S. Eng., U. S. Courthouse & Customhouse, St. Louis, Mo., constructing air conditioning for bldg., Sangamon Co., to York Ice Mchy. Corp., 117 S. 11 St., St. Louis, Mo., under **$50,000.**

†**Illinois** — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., U. S. Courthouse & Customhouse, St. Louis, Mo., electrical distr. and lighting sys., Madison Co., to A. A. Electric Co., Cicero, **$50,000-$100,000.**

†**Illinois** — RAILROAD — U. S. Eng., 520 Merchandise Mart, Chicago, standard gage railroad, Fulton Co., to Longwill-Scott Inc., 1036 Fairmont St., St. Louis, Mo., **$100,000-$500,000.**

★†**Indiana** — AUXILIARY FIELD — U. S. Eng., Federal Bldg., Louisville, Ky., auxiliary field, Jackson Co., to Michael Pontarelli & Sons, 4248 N. Kilpatrick St., Chicago, Ill., **$500,000-$1,000,000;** auxiliary field, Jackson Co., to Skilken Bros., 44 E. Broad St., Columbus, O., **$100,000-$500,000.**

★†**Indiana**—AUXILIARY FIELD—U. S. Eng., Federal Bldg., Louisville, Ky., miscellaneous construction for auxiliary field, Jackson Co., to Western Contg. Corp., 2100 E. 4 St., Sioux City, Ia. **$1,000,000-$5,000,000.**

†**Indiana**—FIELD—U. S. Eng., Federal Bldg., Louisville, Ky., auxiliary field, Jackson Co., to Ralph Myers Constr. Co., Salem, **$100,000-$500,000.**

†**Indiana**—STEAM ENGINE SHELTER, etc. —U. S. Eng., Federal Bldg., Louisville, Ky., steam engine shelter and extra heavy pipe

SSIFIED (Contracts Awarded, Cont'd.)

s, Vigo Co., to R. E. Meyer, 214 Natl. Terre Haute, under **$50,000.**

sas — ELECTRICAL DISTRIBUTION M—U. S. Eng., 416 Wright Bldg., Okla., electrical distr. sys., to Galey ley, Tahlequah, Okla. Est. under

tucky—SITE DEVELOPMENT—U. S. 612 Federal Bldg., Louisville, site de- Union Co., to Ryan Constr. Corp., Court Bldg., Evansville, Ind., under

isiana—ELECTRIC POWER FACILI- U. S. Eng., foot of Prytania St., New s, installing electric power facilities, haba Parish, to Louisiana Power & Co., Algiers and Gretna Sts., New under **$50,000.**

isiana — SPRINKLER SYSTEM — U. S. U. S. Post Office & Courthouse, Vicks- Mss., automatic sprinkler sys., to Auto- Sprinkler Corp. of America, Masonic New Orleans, under **$50,000.**

yland—CLEARING, etc.—U. S. Eng., Douglas Sts., Wash., D. C., clearing, grading, paving roads and aprons, Georges Co., to T. E. Russell, Fred- **$50,000-$100,000.**

yland — LIGHTING SYSTEM — U. S. and Walnut Sts., Phila., Pa., light- Talbot Co., to The Whiteley Elec- 13 N. Carey St., Baltimore, Md., un- **$50,000.**

yland—SCRAPING, etc.—U. S. Eng., Oil Bldg., Baltimore, scraping and ground surfaces, Baltimore Co., to Constr. Co., Middle River, under

sachusetts—RUNWAY PAVING—U. S. Industrial Trust Bldg., Providence, paving runways, taxiways and apron, Co., to David Nassif Co., 20 Provi- St., Boston, **$100,000-$500,000.**

higan—ELECTRICAL DISTRIBUTION EM—U. S. Eng., 520 Merchandise Mart, Ill., electrical distr. sys., Calhoun Co., tral Electric Co., Battle Creek, under

higan — LIGHTING SYSTEM — U. S. 520 Merchandise Mart, Chicago, Ill., ing sys., Calhoun Co., to Central Electric Battle Creek, under **$50,000.**

issippi—CLEARING—U. S. Eng., U. S. house & Customhouse, Mobile, Ala., clear- glide angles for runways, Oktibbeha Co., H. Hearon Lumber Co., Starkville, under

issippi—GRADING, etc.—U. S. Eng., Courthouse & Customhouse, Mobile, Ala., grading, paving and electric duct for run- taxiways, Harrison Co., to Murphy Co., Inc., Morgantown, W. Va., **$100,-** **$500,000.**

issippi—IMPROVEMENTS—U. S. Eng., Post Office & Courthouse, Vicksburg, ves., to Clark Bros. Co., Woodrow Wilson Jackson, under **$500,000.**

issippi—IMPROVEMENTS—U. S. Eng., ffice & Courthouse, Vicksburg, imprvs., to k Bros. Co., Jackson. Est. **$100,000-$500,-**

issippi—OIL STORAGE and DISPENS- SYSTEM—U. S. Eng., U. S. Post Office & rthouse, Vicksburg, oil storage and dis- ng sys., to S. S. Richard, Jackson. Est. r **$50,000.**

ouri—CONSTRUCTION—U. S. Eng., 10 17 St., Kansas City, Mo., construction k Newton Co., to Jones Bro. Constr. Co., **$50,000-$100,000.**

ouri—GASOLINE FUELING SYSTEM S. Eng., 10 E. 17 St., Kansas City, Mo., e fueling sys., Johnson Co., to Aqua ers Inc., 385 Gerard Ave., New York, **$50,000-$100,000.**

ouri—IMPROVEMENTS—U. S. Eng., Davidson Bldg., Kansas City, Mo., imprvs., ary frame bldgs., to Leck & Jensen, 11 St., Minneapolis, Minn.

ouri—IMPROVEMENTS—U. S. Eng., O. Box 97, Memphis, Tenn., school, A. F. Blair, Decatur, Ala. To exceed 000. CD 9/16—ENR 9/24.

ana—STORAGE, etc.—U. S. Eng., Ad- ration Bldg., Fort Peck, storage and ng facilities, Glacier Co., to J. Sletten, 1 Ave. N, Great Falls, under **$50,000.**

raska—AIRFIELD—U. S. Eng., 1709 ckson St., Omaha, airfield, Buffalo Co., Guthrie & Co., Inc., 424 Endicott Bldg., Paul, Minn., **$1,000,000-$5,000,000.**

raska—ALARM SYSTEM—U. S. Eng., Jackson St., Omaha, installing alarm sys., s Bluff Co., to Electronic Radio Alarm Lincoln Liberty Bldg., Phila., Pa., under 000.

raska—GASOLINE FUELING SYSTEM S. Eng., 1709 Jackson St., Omaha, gaso- fueling sys., Brown Co., to Schollman, g & Anderson, 4114 N. 24 St., Omaha, r **$50,000.**

raska—HANGARS, etc.—U. S. Eng., 709 Jackson St., Omaha, hangars, Douglas to Paschen Contractors, Inc., Chicago, and Peter Kiewit Sons Co., 1024 Omaha Natl. Bank Bldg., Omaha **$1,000,000-$5,000,000;** marking runways, taxiways and aprons, Douglas Co., to Townsco Equip. Co., 1704 N.W. 6 St., Oklahoma City, Okla., under **$50,000.**

†Nebraska—UTILITIES—U. S. Eng., 1709 Jackson St., Omaha, utilities, fencing, Scotts Bluff Co., to Empire Constr. Co., 901 S. 40 St., Omaha, **$50,000-$100,000;** electrical distr. sys., Scotts Bluff Co., to Crawford Electric Co., Northplatte, under **$50,000.**

★**†Neb., Harvard**—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., air force installation, to Peter Kiewit Sons Co., 1024 Omaha Natl. Bank Bldg., and Geo. W. Condon & Co., 208 Grain Exchange, both Omaha.

†Nevada—AIR CONDITIONING, etc.—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., air conditioning, heating and dust-proofing, Inv. 244, to W. G. Bradshaw, 912 Echo Ave., Fresno, under **$50,000.** CD 9/23, under LB.

★**†New Hampshire**—IMPROVEMENTS—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., imprvs., Contr. B, to John McCourt & J. P. Condon Corp., 950 Huntington Ave., Boston, Mass., **$500,000-$1,000,000.**

†New Hampshire—PAINTING APRON and HANGAR—U. S. Eng., 31 St. James Ave., Boston, Mass., painting apron and hangar, Hillsboro Co., to Russell E. McCassey Co., Bangor, under **$50,000.**

†New Jersey — CONSTRUCTION — U. S. Eng., 6 and Walnut Sts., Phila., Pa., miscellaneous construction, Salem Co., to Rambusch Decorating Co., 2 W. 45 St., New York, N. Y. **$100,000-$500,000.**

†New Jersey—ELECTRICAL SYSTEM, etc. U. S. Eng., 6 and Walnut Sts., Phila., Pa., constructing electrical and power systems for wood refuse collection sys. for bldg., Morris Co., to Beach Electric Co., Inc., 81 Wallace St., Newark, under **$50,000.**

†New Jersey—HANGAR—U. S. Eng., 6 and Walnut Sts., Phila., Pa., hangar, Cumberland Co., to Lam Bldg. Corp., 1001 Wood St., Phila., Pa. **$50,000-$100,000.**

†New Jersey—LIGHTING SYSTEMS—U. S. Eng., 6 and Walnut Sts., Phila., Pa., lighting sys., Cape May Co., to Wm. E. Snell, Vineland, under **$50,000.** CD 9/2.

†New Jersey—PLANTING, etc.—U. S. Eng., 120 Wall St., New York, N. Y., planting, aggregate treatment, miscellaneous construction, Essex Co., to Horticulture Co., 101 Park Ave., New York, N. Y., **$100,000-$500,000.**

†New Jersey—PLANTING—U. S. Eng., 120 Wall St., New York, N. Y., planting, miscellaneous construction, Passaic Co., to Camouflage Constr. Co., Inc., New York, N. Y., under **$50,000.**

†New Jersey—SPRINKLER SYSTEM—U. S. Eng., 120 Wall St., New York, N. Y., automatic sprinkler sys., Monmouth Co., to Industrial Automatic Sprinkler Co., 111 John St., New York, N. Y., under **$50,000.**

†New Mexico—FIELD FACILITIES—U. S. Eng., Albuquerque, field facilities, Eddy Co., to Bradford & Smith, Haskell, Tex., **$100,000-$500,000.**

†New Mexico—GASOLINE FUELING SYSTEM—U. S. Eng., Albuquerque, gasoline fueling sys., to A. P. Kasch, Big Springs, under **$50,000.** Awarded 9/18.

†New Mexico—RAILROAD SPUR—U. S. Eng., Albuquerque, railroad spur, to Patrick & Prastridge, Albuquerque, under **$100,000.** Awarded 9/18.

†New York — FACILITIES — U. S. Eng., Chimes Bldg., Syracuse, addnl. facilities, Onondaga Co., to Hueber Bros., 513 E. Raynor Ave., Syracuse, **$50,000-$100,000.**

†New York — MOTOR UNIT — U. S. Eng., Chimes Bldg., Syracuse, motor vehicle preparation unit, Schenectady Co., to Caye Const. Co., Inc., 356 Fulton St., Brooklyn, **$50,000-$100,000.**

†New York —RAILROADS—U. S. Eng., 960 Ellicott Sq., Buffalo, removing, constructing railroad sidings, Erie Co., to H. F. Stimm, Inc., Ellicott Sq. Bldg., Buffalo, under **$50,000.**

†North Carolina — CONSTRUCTION — U. S. Eng., 308 Customhouse, Wilmington, miscellaneous construction, Cumberland Co., to Dixon Constr. Co., Inc., Fayetteville, **$100,000-$500,000.**

†North Carolina — SEEDING, etc. — U. S. Eng., 33 Customhouse, Charleston, S. C., seeding, planting, Mecklenburg Co., to Mecklenburg Nurseries, Inc., Thrift Hy., Charlotte, under **$50,000.**

†Ohio—AIRCRAFT RUNWAY LIGHTING—U. S. Eng., 700 Union Guardian Bldg., Detroit, Mich., installing range and contact lighting airport runway, Cuyahoga Co., to Doan Electric Co., 8713 Superior Ave., Cleveland, under **$50,000.**

†Ohio—FIRE ALARM SYSTEM—U. S. Eng., U. S. Post Office & Courthouse, Cincinnati, furnishing, installing report and fire alarm sys., Franklin Co., to D & W Constr. Co., Columbus, **$50,000-$100,000.**

†Ohio—MISCELLANEOUS CONSTRUCTION—U. S. Eng., Wright Field, Dayton, miscellaneous construction, Montgomery Co., to Frank Burke & Son, 35 S. Dearborn St., Chicago, Ill., under **$50,000.**

†Oklahoma—AIR CONDITIONING SYSTEM—U. S. Eng., 231 W. Main St., Denison, Tex., air conditioning sys., link trainer bldg., Tillman Co., to Dallas Air Conditioning Co., Inc., 3500 Commerce St., Dallas, Tex., under **$50,000.**

†Oklahoma—AIR CONDITIONING SYSTEM—U. S. Eng., 231 W. Main St., Denison, Tex., air conditioning sys., Jackson Co., to Dallas Air Conditioning Co., Inc., 3500 Commerce St., Dallas, Tex., under **$50,000.**

†Oregon—CONSTRUCTION—U. S. Eng., Pittock Blk., Portland, addnl. construction, Umatilla Co., to P. N. Odegard, W. C. Smith Co., L. H. Hoffman and Howard S. Wright Co., Portland, **$100,000-$500,000.**

†Oregon — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., Pittock Blk., Portland, electrical distr. sys., Deschutes Co., to Mark Smith & Co., Klamath Falls, under **$50,000.**

†Pennsylvania — FERTILIZING, etc.—U. S. Eng., 925 New Federal Bldg., Pittsburgh, fertilizing, seeding at gasoline storage base, Beaver Co., to John M. Eisler, Butler, under **$50,000.**

Pennsylvania—POWER LINE—Northwestern Rural Electric Co-operative, Inc., Cambridge Springs, 27 mi. electric power line, to Gilmore Electric Constr. Co., Hubbard, O. Est. **$25,000.** CD 1/28—ENR 2/5.

Pa., East Altoona (mail Altoona)—COALING STATION—Pennsylvania R.R., W. D. Wiggins, ch. engr., Broad St. Station Bldg., Phila., reinforced coaling station, 1,250 ton capacity, to Ogle Constr. Co., 2 E. Jackson Blvd., Chicago, Ill. Est. **$200,000.**

†South Carolina—IMPROVEMENTS—U. S. Eng., Florence, imprvs., Florence Co., to W. C. Shepherd, 2450 Briarcliff Rd. N.E., Atlanta, Ga. Bids 9/22.

†South Carolina—IMPROVEMENTS—U. S. Eng., Sumter, imprvs., Richland Co., to Warren Bros. Road Co., 30 Memorial Dr., Boston, Mass. Bids 9/22.

†South Carolina — RELOCATING RAILROAD, etc. — U. S. Eng., 33 Customhouse, Charleston, relocating railroad, spur track and by., Florence Co., to W. C. Shepherd Co., 2450 Briarcliff Rd. N.E., Atlanta, Ga., **$100,000-$500,000.**

†South Carolina — RESERVATION FENCING—U. S. Eng., 33 Customhouse, Charleston, reservation fencing, Richland Co., to Wade H. Ross, Columbia, S. C., under **$50,000.**

†South Dakota — IMPROVEMENTS — U. S. Eng., U. S. Post Office & Customhouse, St. Paul, Minn., imprvs., bituminous road surfacing, to B. S. Andrus, Richmond, and S. Concord, South St. Paul, Minn. Est under **$50,000.**

†Tennessee — AUTOMATIC FIRE ALARM SYSTEM—U. S. Eng., 306 U. S. Courthouse, Nashville, automatic fire alarm sys., Davidson Co., to American District Telegraph Co., 155 6 Ave., New York, N. Y., under **$50,000.**

†Tennessee—BIN—U. S. Eng., 306 U. S. Courthouse, Nashville, concrete bin, Maury Co., to Neff & Fry Co., Camden, O., under **$50,000.**

†Tennessee—FIRE ALARM SYSTEM—U. S. Eng., 306 U. S. Courthouse, Nashville, automatic fire alarm sys., Rutherford Co., to American District Telegraph Co., 155 6 Ave., New York, N. Y., under **$50,000.**

†Tennessee—GASOLINE FUELING SYSTEM—U. S. Eng., P. O. Box 97, Memphis, gasoline fueling sys., Dyer Co., to W. A. Beck, Inc., St. Louis, Mo., under **$50,000.**

†Tennessee—GASOLINE STORAGE TANKS—U. S. Eng., 494 Spring St. N.W., Atlanta, Ga., gasoline storage tanks, Gibson Co., to Wayne Pump Co., 353 Madison Ave., Memphis, Tenn., under **$50,000.**

†Tennessee — GRADING, RAILROAD SIDING, etc.—U. S. Eng., 306 U. S. Courthouse, Nashville, grading, railroad siding, road surfacing, Maury Co., to T. M. Strider & Co., Cotton States Bldg., Nashville, **$50,000-$100,000.**

†Tennessee —MISCELLANEOUS CONSTRUCTION—U. S. Eng., Nashville, miscellaneous construction, to Alphonus Custodis Chimney Constr. Co., 80 Broad St., New York, N. Y., under **$50,000.**

★**†Tennessee**—SPRINKLER SYSTEM—U. S. Eng., 306 U. S. Courthouse, Nashville, automatic sprinkler sys., to Crawford & Slaten Co., 820 Woodrow St., S.W., Atlanta, Ga. Est. under **$1,000,000.**

†Texas—AIR CONDITIONING, etc.—U. S. Eng., 231 W. Main St., Denison, furnishing, installing air conditioning refrigerating equip., Tarrant Co., to Worthington Pump & Machinery Corp., 401 Worthington Ave., Harrison, N. J., **$100,000-$500,000;** steam generating unit, Tarrant Co., to Riley Stoker Corp., 9 Neponset St., Worcester, Mass., **$50,000-$100,000.**

†Texas—AIR CONDITIONING—U. S. Eng., 25 St. and Avenue F, Galveston, air conditioning portion bldgs., to York Ice Machinery Corp., 2201 Texas St., Houston, under **$50,000.**

†Texas—AUTOMATIC FIRE ALARM SYSTEM—U. S. Eng., San Antonio, automatic fire alarm sys., Medina Co., to American District Telegraph Co., 155 6 Ave., New York, N. Y., under **$50,000.**

†Texas—CLEARING, etc.—U. S. Eng., Fort Sam Houston, clearing, excavating, fencing,

UNCLASSIFIED (Contracts Awarded, Cont'd.)

Spec. 42-349, to R. L. Briggs & Co., P. O. Box 1981, San Antonio, **$50,000-$100,000.** Bids about 9/14. CD 9/10.

†**Texas**—CLEARING, etc.—U. S. Eng., San Antonio, clearing, grubbing, constructing boundary fence, Taylor Co., to P. C. Stanley & E. R. Lamb, Fort Worth, under **$50,000;** electrical distr. sys., Taylor Co., to Embry Electric Co., Brady, under **$50,000;** roads, sidewalks, Taylor Co., to W. G. Drummond Constr. Co., View, under **$50,000.**

†**Texas**—FACILITIES—U. S. Eng., San Antonio, facilities for motor transport service, Bexar Co., to Vann Wilson, L. F. Weaver and H. W. English, 2054 W. Woodlawn St., San Antonio, under **$50,000.** CD 9/9.

†**Texas**—GRADING, etc.—U. S. Eng., 231 W. Main St., Denison, grading, drainage, site development, to Gaylord & Shaw, 9333 Lakemont St., Dallas. **$50,000-$100,000.**

†**Texas** — HEATING FACILITIES — U. S. Eng., San Antonio, heating facilities, Bexar Co., to Farwell Co., San Antonio, under **$50,-000.** Bids 9/22. CD 9/16.

†**Texas**—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, imprvs., to Selber Const. Co., 5502 Chaucer Dr., Houston, **$100,000-$500,000.** Awarded 9/21. CD 9/17—ENR 9/24.

†**Texas** — RELOCATING POWER LINES, etc.—U. S. Eng., 231 W. Main St., Denison, relocating power lines, Childress Co., to West Texas Utilities Co., Abilene, under **$50,000;** constructing air conditioning sys., Childress Co., to Harris & Beeman, Inc., 509 E. 3 St., Fort Worth, under **$50,000.**

†**Texas**—UTILITIES—U. S. Eng., San Antonio, utilities for expanded area, Taylor Co., to Armstrong & Webb, Abilene, under **$50,000.** CD 9/4.

†**Texas**—WALLS, etc.—U. S. Eng., 25 St. and Avenue F, Galveston, walls for storage tanks, Harris Co., to Brown & Root, Inc., 4300 Calhoun Rd., Houston, **$100,000-$500,000.**

Tex., Rockport—IMPROVEMENTS — Perry R. Bass & Associates, Rockport, imprvs., force account. CD 9/4—ENR 9/10.

†**Utah**—IMPROVEMENTS—U. S. Eng., 32 Exchange Pl., Salt Lake City, imprvs., to Intermountain Securities Corp., First Natl. Bank Bldg., Salt Lake City, **$50,000-$100,000.**

★†**Utah**—INSULATING, etc.—U. S. Eng., 32 Exchange Pl., Salt Lake City, insulating bldgs., to Harrison-Dorman Co., Terminal Bldg., Salt Lake City, **$500,000-$1,000,000;** concrete landing aprons, to W. E. Ryberg Co., Terminal Bldg., Salt Lake City, and Strong & Grant, Springville, under **$1,000,000.**

†**Utah** — MOTOR TRANSPORTATION FACILITIES, etc.—U. S. Eng., 32 Exchange Pl., Salt Lake City, addnl. motor transportation facilities, Salt Lake Co., to Paul Paulsen Co., 44½ W1. South St., Salt Lake City, **$50,000-$100,000*****watch-report and fire alarm sys., Weber Co., to Central Station Signal Co., Inc., San Francisco, Calif., **$50,000-$100,-000*****concrete aprons, Weber Co., to R. E. McKee, 4700 San Fernando Rd. W., Los Angeles, Calif., **$100,000-$500,000.**

†**Utah** — SHED — U. S. Eng., 32 Exchange Pl. Salt Lake City, closed shed, to Johnson & Leck, P. O. Box 520, Ogden, under **$50,000.** Bids 9/11.

†**Utah**—SPRINKLER SYSTEM—U. S. Eng., 32 Exch. Pl., Salt Lake City, automatic sprinkler sys., Salt Lake Co., to Viking Automatic Sprinkler Co., 149 W. 2 St., Salt Lake City, under **$50,000;** surfacing expansion area, Salt Lake Co., to W. W. Gardner, Salt Lake City, **$100,000-$500,000.**

†**Virginia**—PAINTING, etc.—U. S. Eng., 415 P. O. and Court House Bldg., Norfolk, painting bldgs., platforms, Norfolk Co., to R. P. Paoli & Co., Money Point, Norfolk, under **$50,000.**

†**Virginia**—PAINTING, etc.—U. S. Eng., 415 P. O. and Court House Bldg., Norfolk, painting and road treatment, Princess Anne Co., to R. P. Paoli & Co., Money Point, Norfolk, under **$50,000;** planting and nursery stock, Princess Anne Co., to Greenbrier Farms, Inc., Great Bridge Rd., Norfolk, under **$50,000.**

†**Washington**—LIGHTING SYSTEM—U. S. Eng., 810 3 Ave., Seattle, lighting sys., Spokane Co., to Consolidated Electrical Contractors, 619 W. First Ave., Spokane, under **$50,000.**

†**Washington**—OIL and LUBRICATING SYSTEM—U. S. Eng., 810 3 Ave., Seattle, oil and lubricating sys., Spokane Co., to Hansen & Weidner, 1517 W. Jackson St., Spokane, under **$50,000.**

†**Washington**—RANGE FACILITIES—U. S. Eng., 800 3 Ave., Seattle, addnl. range facilities, Pierce Co., to Sam Bergesen, Wick & Dahlgren, Seattle, under **$50,000.**

★†**Washington** — RUNWAYS, etc. — U. S. Eng., 800 3 St., Seattle, runways, taxiways, hardstanding and truck road, Snohomish Co., to A. Osberg, Lloyd Bldg., Seattle, Wash., **$500,000-$1,000,000.**

†**Washington**—STEAM DISTRIBUTION SYSTEM—U. S. Eng., 810 3 Ave., Seattle, steam distr. sys., to C. M. Ludberg, W. 326 First St., Spokane, **$100,000-$500,000.**

†**Wyoming** — SEEDING — U. S. Eng., 1709 Jackson St., Omaha, Neb., seeding, Natrona Co., to E. Hirschfeld, Casper, under **$50,000.**

★**B. C., Fort Nelson**—AIRPORT DEVELOPMENT—Dpt. Transport, Ottawa, Ont., addnl. airport development, clearing, grading, hard surface runways, constructing bldgs., power house, mess hall, storage bldg., barracks, etc., to Western Constr. & Lumber Co., Ltd., Edmonton, Alta., about **$700,000.**

★**Que., Quebec City** — SHIPYARD — Dpt. Munitions & Supply, Ottawa, Ont., exten. shipyard, new bldgs., exten. existing structures, docks gantry cranes, etc., to A. Deslauriers et Fils, Limitee, 68 Lalemant St., about **$1,000,000.** O. J. McCulloch, 1440 St. Catherine St. W., Montreal, engr. CD 9/17—ENR 9/24.

PUBLIC BUILDINGS

PROPOSED WORK

†**Arizona**—U. S. Eng., Albuquerque, N. M., engineer-architect services by Wilson & Co., Albuquerque, N. M. bldg., Coconino Co.

★†**Arkansas**—Pub. Housing Auth., NHA, Electric Bldg., 7 and Taylor Sts., Fort Worth, Tex., temporary dormitories.

★†**Arkansas**—U. S. Eng., Gay Bldg., Little Rock, addnl. housing. $500,000.

Ark., Arkadelphia—Citizens Com., c/o Mayor, warehouse.

★†**California**—Henry J. Kaiser Co., Latham Square Bldg., Oakland, war apts. and multiple housing units. $13,000,000. U. S. Maritime Comn. will finance.

†**California**—Richmond Housing Auth., H. Barbour, exec. dir., Administration Bldg., Atchison Village, Richmond, plans by F. H. Reimers, 233 Post St., San Francisco, school, etc., Harbor Gate subdivision, for NHA.

†**California**—U. S. Dpt. Agriculture, Guayule Rubber Project, 500 Aisal St., Salinas, plans by C. E. Butner, 7 Winham St., Salinas, sheds and shop bldgs. $125,000.

†**California**—U. S. Eng., 1209 8 St., Sacramento, engineer-architect services by Huber & Knapik, 1 Montgomery St., San Francisco, bldg., Sacramento Co.

★†**Colorado**—U. S. Eng., c/o Postmaster, Denver, military housing. Under $5,000,-000.

†**Georgia**—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., engineer-architect services by Goodwin & Van Keuren, Martin Bldg., Birmingham, Ala., construction, Chattanoochee Co.

†**Georgia**—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Savannah, housing.

★†**Ga., Thomasville**—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., cantonment type hospital. Over $3,000,000.

†**Idaho, Boise**—U. S. Eng., Pittock Blk., Portland, Ore., military housing. $250,000.

†**Ill., Chicago**—U. S. Eng., 520 Merchandise Mart, Chicago, engineer-architect services by A. Epstein, converting Chicago Beach Hotel, into hospital.

★†**Louisiana**—Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C., dormitories. Over $1,000,000. J. Voorhies, 3000-A Dalrymple Dr., Baton Rouge, engr.

†**Maine**—U. S. Eng., Park Sq. Bldg., Boston, Mass., temporary bldgs., No. 175-43-Neg. 90.

†**Md., Leonardtown**—St. Marys Hospital, Leonardtown, plans by J. J. Baldwin, 927-15 St., N.W., Wash., D. C., hospital addn. $95,000. **FWA.** CD 8/19—ENR 8/27.

Mich., Detroit—Bd. Educ., 1354 Bway. Ave., plans by N. Chester Sorensen Co., 2200 Industrial Bank Bldg., 2 story, bsmnt., brick, steel, concrete school, plain fdn. $150,000.

★†**Miss., Jackson**—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, engineer-architect services by Burns & McDonnell Eng. Co., 107 W. Linwood Blvd., Kansas City, Mo., cantonment type hospital. Over $4,000,000.

†**Missouri**—U. S. Eng., 800 Courthouse & Customhouse, St. Louis, bldgs.

†**Nebraska**—U. S. Eng., 1709 Jackson St., Omaha, engineer-architect services by Harza Eng. Co., 205 W. Wacker Dr., Chicago, Ill., bldg., Buffalo Co.

★†**Nebraska**—U. S. Eng., 1709 Jackson St., Omaha, engineer-architect services by Royce J. Tipton, First Natl. Bank Bldg., Denver, Colo., plant addn. Under $5,000,000.

†**New Jersey**—U. S. Eng., 6 and Falnut Sts., Phila., Pa., engineer-architect services by W. T. Harcher & Livingston Smith, 1520 Locust St., Phila., Pa., for construction, Salem Co.

†**New Jersey**—U. S. Eng., 6 and Walnut Sts., Phila., Pa., engineer-architect services by Wenner & Chance, Architects Bldg., Phila., Pa., temporary construction, Cumberland Co.

†**New Mexico**—U. S. Eng., Albuquerque, engineer-architect services by Wilson & Co., Albuquerque, bldg. McKinley Co.

†**New Mexico**—U. S. Eng., Albuquerque, engineer-architect services by W. C. Kruger, Santa Fe, bldg., Sandoval Co.

★**N. Y., Brooklyn**—Bd. [illegible] Ave. Ext., plans by [illegible] 5 story, school addn., 12[illegible] 000.

†**N. Y., Brooklyn**—Def[illegible] Vermont Ave., N.W., W[illegible] 50x145 ft. plant, $60,000. c/o owner, archt. Air R[illegible] E. 42 St., New York, [illegible]

★†**Oklahoma**—U. S. Eng[illegible] Tulsa, addnl. military [illegible] $1,000,000 or more.

†**Pennsylvania**—U. S. [illegible] Bldg., Baltimore, Md., eng[illegible] ices by Gravell & Minic[illegible] porary frame bldgs., Leb[illegible]

†**Pennsylvania**—Pub. H[illegible] 270 Bway., New York, N. [illegible] poned construction housing [illegible] Bids 6/23. CD 6/26—ENR [illegible]

†**Texas**—U. S. Eng., 231 W[illegible] son, engineer-architect ser[illegible] Sharp, Welch, & Goodwin, [illegible] Dallas, rehabilitation bldg.

†**Texas**—U. S. Eng., 231 W[illegible] son, bldgs., facilities.

★†**Texas**—U. S. Eng., Fort [illegible] panding training station. $2,000,000.

★†**Texas**—U. S. Eng., Fort Sam Houston, bldgs. $3,500,000.

★†**Texas**—U. S. Eng., Fort Sam Houston, military housing. $1,000,000 or more.

†**Texas**—U. S. Eng., 25 St. and Avenue F, Galveston, bldg. $150,000.

Tex., Dallas—Bd. Educ., mechanical training school plant. $127,000.

†**Washington**—U. S. Eng., 800 3 Ave., Seattle, engineer-architect services by Young & Richardson, Central Bldg., Seattle, construction, King Co.

†**Wash., Bremerton**—Pub. Bldgs. Admin., North Interior Bldg., Wash., D. C., school, Sheridan Park, near here. $125,000.

†**Wash., Bremerton**—School Dist. 100-C, Central School, 5 and Warren Sts., addn., Westpark and East Bremerton Schools. $45,000. **FWA.**

†**Wash., Kirkland**—School Bd., Kirkland, school, Docket 45-217. $104,700. **FWA.**

†**Pacific Northwest**—U. S. Eng., 810 3 Ave., Seattle, Wash. bldg.

★**Ont., Toronto**—Bd. Wellesley Hospital, Homewood Pl., plans by D. E. Kertland, 24 Summerhill Gardens, hospital exten. $500,000. CD 7/7—ENR 7/16.

★**Que., Montreal**—Wartime Housing Ltd., 11 York St., Toronto, Ont., 300 dwellings. $900,000.

★**Que., Quebec City**—O. J. McCulloch, engr., 1440 St. Catherine St. W., Montreal, bldg. soon new bldgs., exten. bldgs., incl. docks, admin. and personnel bldgs., at Princess Louise Basin, for Dpt. Munitions & Supply, Ottawa, Ont. $1,000,000.

BIDS ASKED

Bids Asked October 5

†**Pennsylvania**—Allegheny Housing Auth., 201 County Office Bldg., Pittsburgh, housing, Project Pa. 36105 for NHA. Extended date. CD 9/22—ENR 9/24.

Bids Asked October 6

†**Pennsylvania**—Pub. Housing Auth., NHA, 270 Bway., New York, N. Y., housing, Proj. Pa. 38085. CD 9/21—ENR 9/24.

Bids Asked October 14

†**Idaho, Sandpoint** — Pub. Bldgs. Admin, Latham Square Bldg., Oakland, Calif., post-office painting, misc. repairs.

Bids Asked About October 15

†**Wisconsin**—Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, Ill., dormitories, admin., bldg., Project Wis. 47023; housing, admin. bldg., Project Wis. 47022. Boelter, Schober, Berners, Safford & Jahn, 310 Pine St., Green Bay, archts. A. E. McMahon Eng. Co., Menasha, engrs.

Bids Asked October 15

★†**Wash., Bremerton**—School Dist. 100-C, Central School, 5 and Warren Sts., 2 story, 126x380 ft., concrete high school, steam heating sys. $500,000. **FWA.** Plans deposit $25. Naramore & Brady, Dexter Horton Bldg., Spokane, archts. CD 7/15—ENR 7/23.

Bids Asked About October 20

★†**Maryland**—Pub. Bldgs. Admin., North Interior Bldg., Wash., D. C., hospital, Proj. 18-148. $612,000. CD 9/16—ENR 9/24.

Bids Asked October 20

★**D. C., Wash.**—District Comrs., District Bldg., addn. to Gallinger Hospital, Proj. D. C. 49-140. $608,000.

†**Md., Bethesda**—Pub. Bldgs. Admin., North Interior Bldg., Wash., D. C., hospital center and nurses home.

Bids Asked

†**Maine**—U. S. Eng., Park Sq. Bldg., Boston, Mass., (selected bidders) temporary bldgs., earthwork, utilities.

IC BLDGS. (Bids **Asked**, Cont'd.)

xas—U. S. Eng., Fort Sam Houston, hut- Spec. 42-449; warehouse, electric distr. pec. 42-448 $255,000. CD 9/28.

BIDDERS

lifornia—U. S. Eng., Wright Bldg., mento, Sept. 23, bldg., Spec. 214, from re Constr. Co., 3511 E. Curtis Park ramento. $100,000-$500,000. Bids 9/22.

laware — Pub. Housing Auth., NHA, low Bldg., Wash., D. C., Sept. 18, hous- el 7031, from Joseph Bisceglia & Sons, 421 Harrison Ave., Harrison, N. Y., 06. CD 8/14—ENR 8/13.

xas—U. S. Eng., Fort Sam Houston, lectric distr. sys., Spec. 42-455 (T2-13), Robert E. McKee, 1918 Texas St., El

Washington — Tacoma Housing Auth., coma, Sept. 21, permanent housing, ct 45015, for NHA, from Macdonald ding Co. and Woodworth Co., 1517 S. ma Way, Tacoma, $1,849,060, est. $1,600,- temporary housing, Project 45014, from Boespflug, Securities Bldg., Seattle, 000, est. $4,800,000.

NTRACTS AWARDED

abama—U. S. Eng., U. S. Courthouse & mhouse, Mobile, supply bldgs., Mobile Co., sser & Creighton Co., Amer. Natl. Bank Nashville, Tenn. $50,000-$100,000.

k-ansas—Pub. Housing Auth., NHA, lectric Bldg., Fort Worth, Tex., pre- ated housing, to E. L. Bruce Co., Thomas Memphis, Tenn., est. under $1,000,000; -work to Young & Maury, Inc., 554 St., Memphis, Tenn., est. $200,000-$500,-

rkansas—U. S. Eng., Gay Bldg., Little frame bldgs., to Flocks Constr. Co., Ft.

rkansas—U. S. Eng., U. S. Post Office, burg, Miss., bldgs., Drew Co., to A. J. Constr. Co., 2808 Inwood St., Dallas, $100,000-$500,000.

California—Industrial Company, ware- ouse, pump house, reservoir, etc., to W. Baum, 232 S. Van Ness Ave., Los es, approx. $575,000. Defense Plant will finance. CD 9/18—ENR 9/24, un- LB.

California—U. S. Eng., 751 S. Figueroa St., Los Angeles, repair bldgs., San Ber- ino Co., to R. E. McKee, 4700 San ando Rd. W., Los Angeles. $500,000- 00,000.

California—U. S. Eng., 74 New Montgomery San Francisco, dispensing group, to How- Bros., Gilroy. Awarded 9/21.

California—U. S. Eng., 74 New Montgomery San Francisco, addnl. bldg., to A. F. Mat- Co., 212 Clara St., San Francisco. arded 9/21.

California—U. S. Eng., 1209 8 St., Sacra- nto, temporary bldgs., Stanislaus Co., to G. Myer, San Francisco. $100,000-$500,000.

California—U. S. Eng., 751 S. Figueroa Los Angeles, refrigerated storehouses, Angeles Co., to N. L. Anderson, Burbank, r $50,000.

Colorado—U. S. Eng., c/o Postmaster, Den- temporary frame bldgs., incl. necessary ices, grading, roads, walks, drainage, etc., lo Co., to Newstrom-Davis & Co., 2000 8 Ave., Denver. $100,000-$500,000.

Colorado—U. S. Eng., c/o Postmaster, Den- repairs on addnl. warehouse, Denver Co., Rushnevsky & Perlmutter Constr. Co., 1611 ee St., Denver, under $50,000.

Florida—U. S. Eng., Courthouse & Post- e, Jacksonville, furnishing, del. pre-fabri- ed bldgs., Monroe Co., to A. H. Ramsey & 71 N.W. 11 Ter., Miami, under $500,000. arded 9/27.

Florida—U. S. Eng., U. S. Courthouse & t Office, Jacksonville, temporary frame gs., Duval Co., to Paul Smith Constr. 110 Rome Ave., Tampa. $100,000-$500,000.

Florida—U. S. Eng., U. S. Courthouse & t Office, Jacksonville, modifications to s., Dade Co., to John B. Orr, Inc., 25 E. 20 St., Miami, less than $500,000.

Georgia—U. S. Eng., 494 Spring St., Atlanta, temporary frame bldgs., Cobb Co., A. F. Blair, Decatur, Ga., $500,000-$1,000,000.

Georgia—U. S. Eng., Marietta, bldg., to Farnell Blair, 215 Church St. N.E., Decatur.

Georgia—U. S. Eng., Postoffice Bldg., annah, bldgs., to Henry A. Ivey Co., 339 College Ave., Decatur.

Georgia—U. S. Eng., Post Office Bldg., annah, bldgs., to Barnesville Planing Mills, rnesville.

Illinois—U. S. Eng., 10 E. 7 St., Kansas y, Mo., staff residences, Sangamon Co., to A. Schulz, Evanston, Ill., $100,000-$500,000.

Illinois—U. S. Eng., U. S. Courthouse & stomhouse, St. Louis, Mo., temporary frame dg., Sangamon Co., to O. A. Schnitz, Evans- $100,000-$500,000.

Illinois—U. S. Eng., Court House, St. Louis, repair shop, Madison Co., to Evans Constr. Springfield, Ill., $100,000-$500,000.

★**†Illinois**—U. S. Eng., 520 Merchandise Mart, Chicago, fabricating wood trusses for bldgs., Cook Co., to Rilco Laminated Products, Inc., St. Paul, Minn., $500,000-$1,000,000.

★**†Indiana**—U. S. Eng., 700 Union Guardian Bldg., Detroit, Mich., boiler house addn., Allen Co., to Hipskind Plumbing & Heating Co., 1725 Winter St., Fort Wayne, less than $1,000,000.

†Kansas—U. S. Eng., 10 E. 17 St., Kansas City, Mo., remodeling bldg., Leavenworth Co., to Lehr Constr. Co., 2115 Frederick St., St. Joseph, Mo., $100,000-$500,000.

★**†Louisiana**—National Housing Auth., Electric Bldg., Fort Worth, Tex., housing, to E. L. Bruce Co., Thomas St., Memphis, Tenn., est. $1,000,000-$2,000,000; electrical work, to Young & Maury, 554 Adams St., Memphis, Tenn., est. $500,000-$1,000,000.

★**†Louisiana**—Pub. Housing Auth., NHA, Electric Bldg., 7 and Taylor Sts., Fort Worth, Tex., housing, to Paul L. Miller & Associates, Minden, and J. A. Harper, Crowville. Est. over $800,000. Awarded 9/19.

†Louisiana—U. S. Eng., foot of Pytania St., New Orleans, bldgs., fences, roads, to Le Blanc Bros. & Aldrich Co., Louisiana Natl. Bank Bldg., Baton Rouge. Awarded 9/17.

★**†Louisiana**—U. S. Eng., foot of Prytania St., New Orleans, hospital facilities, to H. D. White Co., 2202 W. 107 Pl., Chicago, Ill. Est. under $1,000,000.

†Louisiana—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, Miss., civilian housing, to The Werner Co., 1320 Pierre Ave., Shreveport. Est. $100,000-$500,000.

★**†Maine**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., dwellings, Me. 17036, to D. A. Sullivan & Son, Inc., Main St., Northampton, Mass., $877,200. Wadsworth & Boston, 57 Exchange St., Boston, Mass., archts. CD 9/15—ENR 9/17, under LB.

★**†Maryland**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Naval Training Station NOY 5496, to Charles H. Thompkins Co., 907 16 St. N.W., Wash., D. C., $28,660,500, Railroad, NOY 5642, to Haley, Chisholm & Morris, Inc., and Gilbert Constr. Co., Natl. Bank Bldg., Charlottesville, Va., $350,000.

★**†Maryland**—Pub. Bldgs., Admin., North Interior Bldg., Wash., D. C., residence halls, to McCloskey & Co., 1620 Thompson St., Phila., Pa., $578,000.

†Maryland—U. S. Eng., Standard Oil Bldg., Baltimore, addnl. room to cold storage plant, Harford Co., to H. B. Alexander & Son, 3 and Vaughn Sts., Harrisburg, Pa., under $50,000.

†Maryland—U. S. Eng., Standard Oil Bldg., Baltimore, bldgs., Baltimore Co., A-E-M, to Western Electric Co., Inc., 195 Bway., New York, N. Y.

†Massachusetts—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., storage unit, to M. J. Walsh & Sons Co., Shawmut Ave., Holyoke. Est. $50,000. Bids 9/22.

†New Jersey—U. S. Eng., 120 Wall St., New York, N. Y., construction and painting, Bergen Co., to Brown & Matthews, Inc., 122 E. 42 St., New York, N. Y., $100,000-$500,000.

†N. J., Asbury Park—Asbury Park Housing Auth., Asbury Park, general contract Washington Village Housing, for NHA, to Pozzi & Filice, Trenton, $173,000***plumbing, to Lipsky & Rosenthal, Inc., 155 Utica Ave., Brooklyn, $28,000***electrical work, to E. A. Kahn & Co., 163-18 Jamaica Ave., Jamaica, N. Y., $7,900. Grand total $202,079. CD 9/21—ENR 9/23.

†Michigan — Industrial Company, boiler house, to Stibbard Constr. Co., 3000 Grand River Ave., est approx. $50,000. Federally financed Malcolmson, Calder & Hammond, 1219 Griswold St., archts.

★**†Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, theatre of operations type bldgs., mobilization bldg., etc., Washtenaw Co., to M. E. Greenberg, 630 Midland Bank Bldg., Minneapolis, Minn., less than $1,000,000.

★**†Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, theatre of operations bldgs., incl. mess halls, etc., Crawford Co., to Strom Constr. Co., P. O. Box 86, Grand Rapids, under $1,000,000.

★**†Mississippi**—Pub. Housing Auth., NHA, Electric Bldg., Fort Worth, Tex., apartments, frame dormitories, to Crawford & Co., 206 S. 14 St., Baton Rouge, La., about $1,750,-000. CD 7/30 and 8/3—ENR 8/6.

★**†Mississippi**—U. S. Eng., Postoffice & Courthouse, Vicksburg, bldgs., water distr. sys., to Magnolia Constr. Co., Jackson. Est. $1,000,000-$5,000,000.

★**†New Jersey**—Industrial Company design and construction plant, to Day & Zimmerman, Inc., Packard Bldg., Phila., Pa. Est. $575,000. Defense Plant Corp. will finance.

†New Jersey—U. S. Eng., 6 and Walnut Sts., Phila., Pt., bldgs., Cumberland Co., to Wm. Linker Co., Inc., 2036 Arch St., Phila., Pa., $100,000-$500,000.

†New York—U. S. Eng., 960 Ellicott Square Bldg., Buffalo, warehouse and housing, Niagara Co., to Walter S. Johnson Building Co., Inc., Niagara Falls, $100,000-$500,000.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, training aids field artillery replacement training center, Cumberland Co., to F. D. Cline, Fairview Rd., Raleigh, $100,000-$500,000.

†Ohio—Jack & Heintz, Inc., H. E. Stremple, supt. constr., plant, separate contracts, $50,000, Defense Plant Corp. will finance. CD 8/6—ENR 8/13.

★**†Oklahoma**—U. S. Eng., 416 Wright Bldg., Tulsa, furnishing, erecting structural steel, Oklahoma Co., to Muskogee Iron Wks., Muskogee, $1,000,000-$5,000,000.

†Oklahoma—U. S. Eng., 416 Wright Bldg., Tulsa, repair shop, Muskogee Co., to H. L. Apple & G. W. White, 900 N.W. 40 St., Oklahoma City, under $50,000.

†Pennsylvania—U. S. Eng., 925 New Federal Bldg., Pittsburgh, Pa., residences, Crawford Co., to Ortman & Reitze, Meadville, $100,000-$500,000.

†Pennsylvania—U. S. Bureau Mines, Interior Bldg., E. St. between 18 and 19 Sts. N.W., Wash., D. C., 25x40x60 ft. brick, steel, frame, concrete block experimental plant, to H. L. Winner Co., Inc., 2440 Maple Ave., Pittsburgh. CD 7/16—ENR 8/6.

†Pennsylvania—Industrial Company, addnl. facilities, incl. bldgs., vaults, walls, appurtenant electric distr., to David Smith Co., 516 Federal St. N.S. Pittsburgh. Federally financed. Bids 9/7. CD 8/31—ENR 9/3.

★**†Pennsylvania**—U. S. Eng., Chimes Bldg., Syracuse, N. Y., addnl. facilities, Northup Herland Co., to Stone & Webster Eng. Corp., 90 Broad St., New York, N. Y. To exceed $5,000,000.

★**†Tennessee**—War Dpt., 20 St. and Constitutional Ave. N.W., Wash., D. C., expanding plant, to Clark & Fay, Inc., 4444 Poplar St., Memphis. Total over $5,000,000. CD 9/21—ENR 9/24.

★**†Tennessee**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., bldgs., to Forcum-James Co., Dyersburg. Est. over $5,000,000.

†Texas—U. S. Eng., San Antonio, storehouses, Matagorda Co., to P. E. Garrett Contr. Co., Bay City, under $50,000.

†Texas—U. S. Eng., San Antonio, warehouses, Palo Pinto Co., to W. L. Wyman & Son, 1305 S. Beckley St., Dallas, under $50,000.

†Texas—U. S. Eng., 231 W. Main St., Denison, addnl. warehouse, Grayson Co., to G. G. Renshaw, Durant, Okla., under $50,000.

†Texas—U. S. Eng., San Antonio, repair shop, Bell Co., to Whitehill Constr. Co., Wichita Falls, under $50,000.

†Texas—U. S. Eng., Albuquerque, N.M., bldgs., Presidio Co. to McGough Bros., Bankers Mortgage Bldg., Houston, Tex., $100,000-$500,000.

†Texas—U. S. Eng., Amarillo, bldgs., No. 357-42-244, to Randall Const. Co., Amarillo, $100,000-$500,000.

†Texas—U. S. Eng., Channelview, bldgs., to Schneider Constr. Co., 3004 W. Dallas St., Houston, $100,000-$500,000***bldgs., remodeling and addns., ground work to J. D. Murray, 4115½ Walker St., Houston, $100,000-$500,000***railway tracks, facilities, to Wm. A. Smith Constr. Co., 301 Greig St., Houston, under $50,000.

★**†Texas**—U. S. Eng., Fort Sam Houston, bldg., Spec. 42-351, to H. J. von Rosenberg, Builders Exch. Bldg., San Antonio, over $500,000. Awarded 9/18. CD 9/22—ENR 9/24, under LB.

★**†Texas**—U. S. Eng., Fort Sam Houston, San Antonio, miscellaneous construction, Bastrop Co., to R. E. McKee, 1918 Texas St., El Paso, $1,000,000-$5,000,000. CD 9/23, under LB.

★**†Texas**—U. S. Eng., 25 St. and Avenue F, Galveston, bldgs., Contrs. 2 and 3, Robertson Co., to Bumbaugh, Cunningham & Dinn, 2024 N. St. Marys St., San Antonio, $1,000,000-$5,000,000. CD 9/18—ENR 9/24, under LB.

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, bldgs., to C. O. Beeler Constr. Co., 7302 Kernel St., Houston, $100,000-$500,000.

†Texas—U. S. Eng., Marshall, bldgs., water lines, sanitary sewer lines, gas lines and facilities, to R. Neff & L. R. Elder, 745 Huron St., Shreveport, La. $100,000-$500,000.

★**†Utah**—U. S. Eng., 32 Exch. Pl., Salt Lake City, hospital facilities, Tooele Co., to H. Hart & R. W. Blanchard, 4149 Farmdale Ave., Hollywood, Calif., $500,000-$1,000,000***automatic sprinkler sys., Tooele Co., to Viking Automatic Sprinkler Co., 149 W. 2 St., Salt Lake City, under $50,000***stables, Tooele Co., to L. F. Dow Co., Salt Lake City, under $50,000.

†Utah—U. S. Eng., 32 Exchange Pl., Salt City, storage warehouse, to Paul Paulsen Co., 55½ W. 1 South St., Salt Lake City, $100,000-$500,000. Bids 9/14.

★**†Virginia**—Pub. Bldgs. Admin., North Interior Bldg., Wash., D. C., residence halls, Bldgs. 1, 6, 7, 8, 9 and 10 and utilities, approaches, to John McShain, Inc., Doyle & Russell & Wise Contr. Co. Inc., 17 and Spring Garden Sts., Phila., Pa., $4,248,000.

†Virginia—U. S. Eng., Standard Oil Bldg., Baltimore, Md., cold storage plant addn., alteration, Dinwiddie Co., to Claiborne & Taylor, Inc., 117 S. 2 St., Richmond, under $50,000.

PUBLIC BLDGS. (Contracts Awarded, Cont'd.)

†**Virginia**—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., miscellaneous bldgs., Arlington Co., to W. B. Avery, 629 F St. N.W., Wash., D. C., **$100,000-$500,000.**

†**Washington**—U. S. Eng., 810 Third Ave., Seattle, housing, to J. Helstrom, Astoria, Ore., **$100,000-$500,000.**

†**Washington**—U. S. Eng., 810 3 Ave., Seattle, bldg., to Anderson Building Co., E. 4409 Sprague Ave., Spokane, under **$50,000.**

†**Washington**—U. S. Eng., 800 3 St., Seattle, storehouse, Snohomish Co., to S. Bergesen, Wick & Dahlgren, McCord Field, under **$50,000.**

†**Wisconsin**—U. S. Eng., 520 Merchandise Mart, Chicago, Ill., bldgs., structures, Monroe Co., to Joseph A. Bass Co., 332 Sexton Bldg., Minneapolis and Paul Steenberg Constr. Co., W. 1757 1st Natl. Bk. Bldg., St. Paul, Minn., **$100,000-$500,000.**

†**Wisconsin**—U. S. Eng., 408 Federal Bldg., Milwaukee, plant bldgs., DA-W-1095-Engr.-183, to Daum & Zingen Const. Co., 2230 N. 81 St., Wauwatosa. Bids 9/8.

†**Wyoming**—U. S. Eng., 1709 Jackson St., Omaha, Neb., temporary frame bldgs., Natrona Co., to Morrison-Knuxsen Co., Inc., 319 Bway., Boise, Idaho, **$100,000-$500,000.**

Ont., Welland—Wartime Housing, Ltd., J. M. Piggott, pres., 55 York St., Toronto, 200 addnl. 1 story frame houses, to Russell Constr. Co., Harbor Commissioners Bldg., Toronto. Est. **$300,000.** Awarded 9/29.

Que., Ste. Therese—Wartime Housing, Ltd., 55 York St., Toronto, Ont., 100 single family dwellings, to Donolo Constr. Co., Ltd., 85 Jean Talon St. W., Montreal. Est. **$360,000.** Bids 9/15. CD 9/11.

★**Que., Vaudreuil**—Dominion Govt., Ottawa, Ont., storage depot, some concrete throughout, other wood on concrete fdns., to Collet Bros., Ltd., 1978 Parthenais St., Montreal, **$500,000.** Dpt. Munitions & Supply, Ottawa, Ont., engrs.

COMMERCIAL BUILDINGS

PROPOSED WORK

Calif., Corte Madera — G. V. Thompson, Realty Bldg., 21 2 St., San Jose, 85 homes in Chapman Park, McCue Orchard Tract, Madera Park and McCue and Pixley Tract. $4,500 each.

Calif., Los Angeles—Los Angeles College of Chiropractic, 920 Venice Blvd., plans by Stiles O. Clements, 1135 Van Nuys Bldg., altering 1 story, frame, stucco hospital, 4000 Venice Blvd. $250,000.

Conn., Plainville—T. Laydon, Side Hill Rd., Hamden, plans by Thure Olsen, 273 Munson St., New Haven, 60 frame houses. $240,000.

Del., Newark—Van Asdlen, South Chapel, 33 dwelling units, East Park Place, South Chapel. Over $200,000.

Kan., Lawrence—Leo F. Brady, 6736 Rockhill Rd., Kansas City, Mo., 40 houses. $120,000.

Kan., Lawrence—W. H. Shackleford, 7510 Ward Pkwy., Kansas City, Mo., 50 houses. $150,000.

Mo., Joplin—St. Johns Hospital, plans completed by Carroll & Dean, Long Bldg., Kansas City, Mo., hospital addn. $250,000. Will submit to FWA. CD 5/27—ENR 6/4.

★**Pennsylvania** — Crosby Fox Corp., Lansdowne, 80 apartment units, Sayer and Nejack Aves., Lansdowne County. Over $500,000.

Pennsylvania—Freedom Homes, Inc., Ridley Twp., 83 single family dwellings, Leedom Estate, Ridley Twp., Delaware Co. Over $400,000.

Pa., Bristol—Bristol Defense Homes, Inc., 50 housing units, Fleetwing Rd. and Green Lane. $250,000.

Pa., Emporium—Emporium Housing Corp. (forming), H. W. Zimmer (genl. mgr. Hygrade Sylvania Corp., Emporium), in charge, seventy 1½ story frame residences. $240,000.

★**Pa., Phila.**—Penn Hills Apartment, Inc., Penn Hills, Ridley Twp., 88 apartment bldgs., Hollis, Holland, Morris and Haverford Aves. Over $500,000.

Tenn., Memphis—First Baptist Church, 538 Linden St., church. $200,000.

Wis., Racine—Ace Realty Co., c/o W. H. Miller, 213 6 St., plans by Brimeyer, Grellinger & Rose, 730 N. Jackson St., Milwaukee, 1 story, bsmnt., 24x30 ft. frame houses.

CONTRACTS AWARDED

Calif., Alameda—Bethlehem Steel Co., 2308 Webster St., 3 story field office bldg., to Chas. Stockholm & Sons, 447 Sutter St., San Francisco. CD 8/31—ENR 9/3.

Calif., Concord—Calimpco Co., Inc., Monadnock Bldg., San Francisco, sixty 1 story, frame, stucco residences, Green Acres, near Concord High School. Owner builds. **$240,000.** Wm. Mooser, Jr., Monadnock Bldg., San Francisco, archt.

Calif., Concord—C. O. Sweet, 5233 College Ave., 66 residences, Avon-Concord Hy. and Seal Bluff. Owner builds. **$264,000.** F. L. Confer, Hotel Claremont, Berkeley, archt.

Calif., Concord—C. R. Tisher, 6127 Foothill Blvd., Oakland, sixty 1 story, frame, stucco residences, Green Dell Acres, near Concord High School. Owner builds. **$240,000.** Wm. Mooser, Jr., Monadnock Bldg., San Francisco, archt.

Calif., Long Beach—Artcraft Builders, Inc., 6900 S. Western Ave., Los Angeles, 186 frame, stucco dwellings, Lakewood Blvd. and Stearns St. Owner builds. Over **$150,000.**

Calif., Rodeo—Eric Smith, Rodeo, 50 residences, Rodeo Vista Tract. Owner builds. **$175,000.** Wm. Mooser, Jr., Monadnock Bldg., San Francisco, archt.

Mass., West Roxbury—F. J. Rines, 1815 Center St., twenty-nine 2 story, frame, brick houses, Cerdan Ave., Peaks Hill Rd. and Bellaire. Owner builds. **$174,000.**

Nev., Las Vegas — Mayfair Tract 3, Las Vegas, 122 frame, stucco dwellings. Owner builds, under supervision S. Chas. Lee, archt., 1648 Wilshire Blvd., Los Angeles, Calif. Est. **$300,000.**

N. J., Roselle—Owner, c/o Wm. Lescaze, archt., 211 E. 48 St., New York, N. Y., 2 story, bsmnt., brick, cinder block garden type apartment, to Sheppard-Pollak, Inc., 18 E. 48 St., New York, N. Y. **$400,000.**

O., Elyria—A. Bruscino, 15702 Brasmer Dr., Cleveland, 36 dwellings, Hawthorne Ave. Owner builds. **$155,000.** CD 12/4 — ENR 12/11.

Pa., Beaver Falls — Perry Garrett (Owner Garrett Motors), 811 7 Ave., thirty 1 story, bsmnt., 24x28 ft., brick veneer residences, to R. B. McDanel, 1818 3 Ave., New Brighton. W. J. Stewart, 556 9 Ave., New Brighton, archt.

Pa., Phila.—Roberts Constr. Co., Real Estate Trust Bldg., 30 housing units, Sheffield St. north of Ditman St. Owner builds. Over **$150,000.** C. H. Fries, Beury Bldg., Broad and Erie Sts., archt. CD 4/23—ENR 5/1.

★**R. I., Pawtucket** — Earl W. Taylor, 244 Wilson Ave., East Providence, 142 housing units, Central Ave. and Benefit St. Owner builds. Est. **$1,000,000.** Edwin E. Cull, 58 Weybosset St., Providence, archt.

Utah, Provo—J. Willis Sessions & L. L. Cullimore, Provo, Timpanogos Village housing, 8 North and 8 East Sts., to H. J. McKean, Dooly Bldg., Salt Lake City, approx. **$200,000.** E. O. Anderson, Newhouse Bldg., Salt Lake City, archt.

Utah, Sunnyside—Utah Fuel Co. and H. J. Jaiser interests, Judge Bldg., Salt Lake City, 250 housing units, "Sunnydale," near here, force account. M. E. Miller, Felt Bldg., Salt Lake City, archt. Caldwell & Richards, Templeton Bldg., Salt Lake City, engrs.

★**Wash., Tacoma**—Northwest Development Co., c/o contractor, 164 houses, 6 Ave. and Mildred St., to J. W. Bailey, 228 9 Ave. N., Seattle. Est. **$649,000.** B. Rome, 2413 N. Adams St., archt.

INDUSTRIAL BUILDINGS

PROPOSED WORK

Conn., Bridgeport—PLANT—General Shaver Div. Remington Rand, Inc., 2 Main St., 2 story, 130x150 ft., brick plant addn., Main St. $150,000. Fletcher-Thompson, Inc., 211 State St., engr.

Calif., Marysville—PLANT—National Ice & Cold Storage Co., Marysville, enlarging ice and cold storage plant.

Calif., San Francisco—BUS DEPOT—Greyhound Lines, 5 and Mission Sts., plans by W. D. Peugh, 333 Montgomery St., bus depot addn.

Conn., Seymour—FACTORY—Seymour Mfg. Co., 15 Franklin St., soon lets contract 1 story, 60x165 ft. brick factory, Franklin St. Fletcher Thompson, Inc., 211 State St., Bridgeport, engrs.

★**Indiana**—PLANT—Jos. E. Seagram & Son, Inc., Lawrenceburg, sketches made by Smith, Hinchman & Grylls, Marquette Bldg., Detroit, Mich., plant. CD 8/4—ENR 8/6.

Mass., Worcester—WAREHOUSE, etc.—Wyman-Gordon Co., 105 Madison St., brick, frame warehouse and shipping facilities. $40,000.

Tex., Longview — PLANT — Madaras Steel Corp., Longview, 3rd expansion plant. Over $200,000.

Alta., Calgary — MILL — Dominion Bridge Co., Dominion St., Lachine, Que., exten. rolling mill. $90,000.

Alta., Rycroft—COALING PLANT—Northern Alberta R.R. Co., J. M. MacArthur, genl. mgr., 311 C. P. R. Bldg., Edmonton, coaling plant. $40,000.

Que., Chicoutimi—PLANT—J. F. Grenon, 35 Chemin St., St. Louis, Que., bids soon, plant. $50,000.

Que., St. Lambert—PLANT—W. H. Meighen, Ltd., St. Lambert, woodworking plant. $40,000.

Que., Montreal—PLANT—Aero Engineering & Industries Co., Ltd., 3480 St. Dominque St., bids soon, plant, Rushbrooke Ave. $60,000. M. Goldwag, c/o owner, engr.

Que., Montreal—PLANT—Can. Marconi Co., Ltd., 2440 Trenton Ave., 70x160 ft. and 50x50 ft. plant addns. J. C. Meadowcroft, 1154 Beaver Hall Hill, archt.

Que., Montreal—PLANT—680 W. Sherbrooke St., R. Perry, engr., lets contract 1 story, 37x150 ft. wood frame addn., for Steel Co. of Dominion St. $60,000.

CONTRACTS AWARDED

Calif., Patterson—PLANT—General Dry Battery Co., 13000 Athens St., Cleveland, O., Lavergne, local representative, to Walfrid [illegible] aration plant, to Walfrid [illegible] St., Est. **$100,000.** CD 8/18—[illegible]

Calif., San Francisco—PLANT—Matson Navigation Co., 215 Market St., [illegible] bldg., SW Bryant and Fremont Sts., industrial ing machine shop, SW Bryant and Fremont Sts., and acetylene to Swinerton & Walberg [illegible] $152,000. K. Theill, 580 Market St., engr.

Connecticut—PLANT—Industrial Company plant units, to Harry Marino Jr., Inc., Lindley St., Bridgeport. Est. $125,000. CD 9/3—ENR 9/17.

Conn., Danbury—PLANT—Machlett Laboratories, Inc., 1063 Hope St., Springdale, steel plant alterations, addn. to W. J. Barney, Inc., 101 Park Ave., New York, N. Y., **$60,000.**

Conn., Hamden (br. New Haven)—PLANT—High Standard Mfg. Co., 1347 Dixwell Ave., plant addns., boiler plant and forge, basement only 60x185, 1 story, 50x60 ft. with 2 story, 50x80 ft. brick, concrete wing, Dixwell Ave. to Dwight Building Co., 67 Church St., New Haven. Est. **$45,000.** Douglas Orr, 96 Grove St., New Haven, archt.

Ky., Louisville — PLANT — The Mengel Co., 1122 Dumesnil St., 1 and 2 story, 255x600 ft. frame and asbestos siding plant, to Wittenberg Constr. Co., 2214 S. Floyd St. Tietig & Lee, W. 6 St., Cincinnati, O., archts.

La., New Orleans—The Linde Air Products Co., 828 Howard Ave., brick plant, to George A. Fuller Co., Munsey Bldg., Wash., D. C. Est. **$70,000.** Awarded 9/23.

Mass., Lynn—PLANT—General Electric Co., 920 Western Ave., brick, concrete boiler plant, to E. C. Blanchard Co., 949 Western Ave., Lynn. Est. **$45,000.** CD 8/27—ENR 9/3.

Mass., Worcester — GARAGE — Worcester Street Ry. Co., 107 Main St., 1 story, 85x186 ft. brick, steel, concrete bus garage addn., Seamore St. Owner builds. **$40,000.**

Mich., Detroit — MACHINE SHOP and POWER HOUSE—Federal Mogul Corp., 11021 Shoemaker Ave., 1 story, 120x460 ft. machine shop, 40x150 ft. power house, rein.-con., steel, brick, plain fdns., to W. J. C. Kaufmann Co., 10610 Shoemaker Ave.; electrical contract to Fife-Pearce Electrical Co., 1446 Gratiot Ave. Est. approx. **$350,000.**

Pennsylvania — PLANT — Industrial Company, rehabilitation mfg. plant, to Heller Murray Co., 222 W. Rayen Ave., Youngstown, O. CD 8/24—ENR 8/27.

R. I., Providence—FACTORY—Liberty Tool & Gage Wks., Inc., 235 Georgia Ave., 1 story, part bsmnt., 75x167 ft. brick, steel, wood factory, Georgia Ave., to C. L. Bigney Constr. Co., 44 Franklin St. Est. **$40,000.**

Tex., Corpus Christi—ENGINE REPAIR SHOP—The Texas Mexican Ry. Co., R. W. Morrison, pres., San Antonio, 1 story, brick concrete engine repair shop, to Cruz Martinez, Corpus Christi, approx. **$45,000.**

Wisconsin—FACTORY—Industrial Company, concrete fdn. for 1 story, 100x100 ft. factory, to Hunzinger Constr. Co., Sta. K, Milwaukee. CD 9/14—ENR 9/17.

Wis., Appleton—FACTORY—Appleton Wire Wks., 600 E. Atlantic St., 1 story, 45x95 ft. brick factory addn., concrete fdn., to Hoffman Constr. Co., 1519 N. Oneida St.

Wis., Milwaukee—FACTORY—Eclipse Plastic Industries, 5148 W. 23 St., 1 story, 73x93 ft., brick factory, concrete fdn., to V. Schramka, 4603 N. Bartlett Ave. U. F. Peacock, 3200 W. Wisconsin Ave., archt.

Ont., Hamilton — FACTORY — Barber Die Casting Co. Ltd., 68 Sanford St. N., factory, to Pigott Constr. Co. Ltd., Pigott Bldg., about **$50,000.**

Ont., Hamilton—PLANT—Hamilton Bridge Co., 231 Bay St., altering 1 story, 50x100 ft. steel, metal plant addn., own forces. **$116,000.**

Ont., London—FOUNDRY—Beatty Bros., Fergus, 1 story, 40x250 ft., brick foundry addn., to Roy James Constr. Co., 1056 Colburne St. Est. **$50,000.** Awarded 9/19.

Ont., New Toronto (Toronto)—STORAGE—Citadel Merchandising Co., Ltd., 24 Adelaide St. E., Toronto, storage bldg., to M. S. Soules, 2 Toronto St., Toronto, about **$100,000.** Margison & Babcock, 210 Dundas St. W., Toronto, archts.

Ont., Stratford—FACTORY—Imperial Ration Co., Ltd., 411 Albert St., remodeling factory, day labor. **$45,000.**

Ont., Toronto — PLANT — Gray Forgings & Stampings, Ltd., 710 St. Clarens Ave., plant exten., to R. G. Kirby & Son, Ltd., 539 Yonge St. About **$95,000,** incl. equipment. CD 9/22.

Ont., Weston (Toronto) — PLANT — Massey-Harris Co., Ltd., 915 King St. W., Toronto, aircraft plant addn., Main St. N., to A. W. Robertson, Ltd., 57 Bloor St. W., Toronto, about **$150,000.** Addnl. to CD 8/14—ENR 8/27 under CA.